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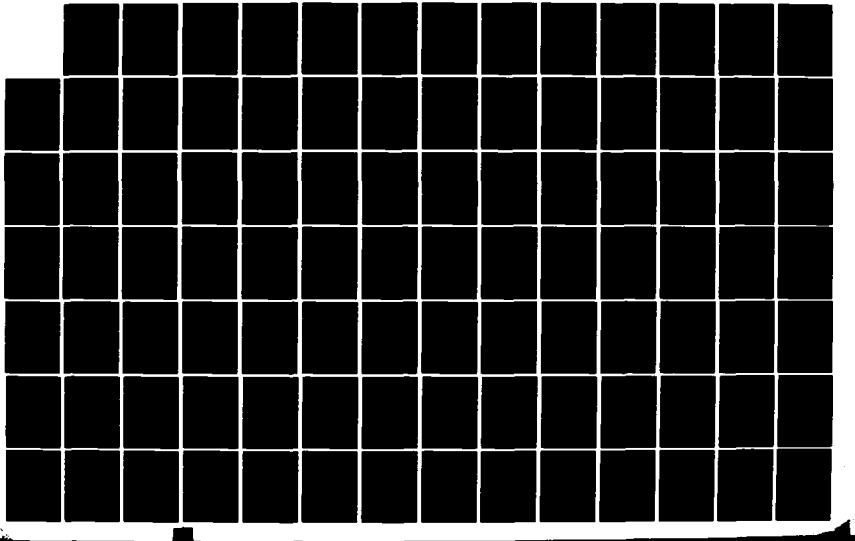

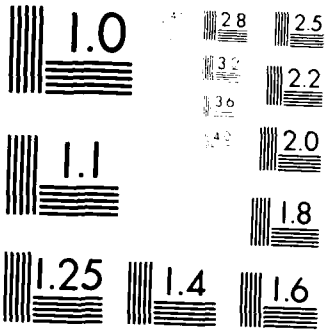

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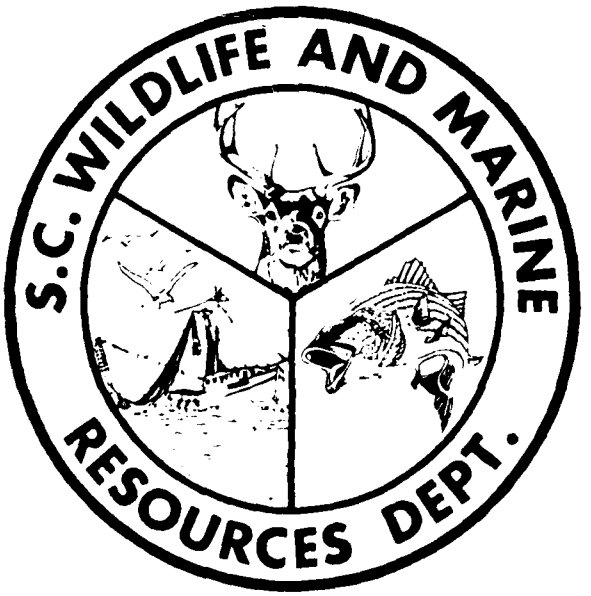
CHARLESTON DISTRICT
U.S. ARMY CORPS OF ENGINEERS

CONTRACT NUMBER DACW60-78-C-0026

Final Report



SOUTH CAROLINA MARINE RESOURCES CENTER

CHARLESTON DISTRICT
U.S. ARMY CORPS OF ENGINEERS

CONTRACT NUMBER DACW60-78-C-0026

Final Report

BENTHIC AND SEDIMENTOLOGIC STUDIES ON THE CHARLESTON HARBOR OCEAN DISPOSAL AREA, CHARLESTON HARBOR DEEPENING PROJECT

Marine Resources Division
South Carolina Wildlife and Marine Resources Department
Charleston, South Carolina 29412

August 1979

Not For Publication

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RE: Not for Publication
Delete the above statement per Ms. Marlene Judy, Army Corps of Engineers, Charleston District

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INTRODUCTION

Charleston Harbor, South Carolina, is the site of an important commercial port and a U.S. Navy Base. Water depths throughout the entire area are typically shallow, and maintenance dredging is necessary to keep access channels at their prescribed depth because of shoaling. Ships enter the harbor via an entrance channel protected along its inner reaches by a pair of rubble jetties. The Charleston Harbor Project, authorized by the River and Harbor Act, provides that the entrance channel be maintained at a depth of 35 feet and a width of 1000 feet from the sea to the inner end of the jetties (U.S. Army Engineer District, Charleston, 1975). The depth of the entrance channel is maintained using a hopper dredge, and dredged material is disposed in an open ocean disposal area just south of the jetties. According to the Corps report, volumes ranging from 367,460 to 1,410,000 cubic yards of dredged materials have been disposed over this site annually since FY 1965.

Relatively little is known about the marine life and sedimentologic processes of the Charleston Harbor Ocean Disposal Area and vicinity. The South Carolina Wildlife and Marine Resources Department (1972) conducted trawl surveys of the area and found relatively few species and low numbers of individuals compared with inshore estuarine areas. However, no thorough benthic sampling has ever been conducted in the area and no data base exists which might be used to assess the impact of disposing dredged material there. A reconnaissance survey of bottom sediments at the mouth of Charleston Harbor was conducted by the U.S. Coast and Geodetic Survey for the U.S. Navy in 1951. This was largely a gear test experiment and yielded very few quantitative grain size analyses.

During September 1978 the Charleston District, U.S. Army Corps of Engineers

entered into a contract with the South Carolina Wildlife and Marine Resources Department for benthic and sedimentologic studies of the Charleston Harbor Ocean Disposal Area and vicinity. The goals of this study were to:

(1) Characterize the species composition and density of benthic communities in areas subjected either to deposition of dredged material or to resulting sedimentation;

(2) Assess the effects of dredged material disposal on bottom communities in the disposal area;

(3) Describe the mineralogic and textural characteristics of the bottom sediments in and about the Charleston Harbor Ocean Disposal area and the bottom sediments of the Charleston Harbor Entrance Channel.

(4) Describe the sediment bedforms present in and about the Charleston Harbor Ocean Disposal area as to size, orientation, and composition (mineralogy and texture).

(5) Ascertain whether the sediment characteristics of the study area have been altered by current disposal practices.

(6) Provide a data base for appraising the effects of deposition of dredged material from Charleston Harbor in the Ocean Dispoal Area.

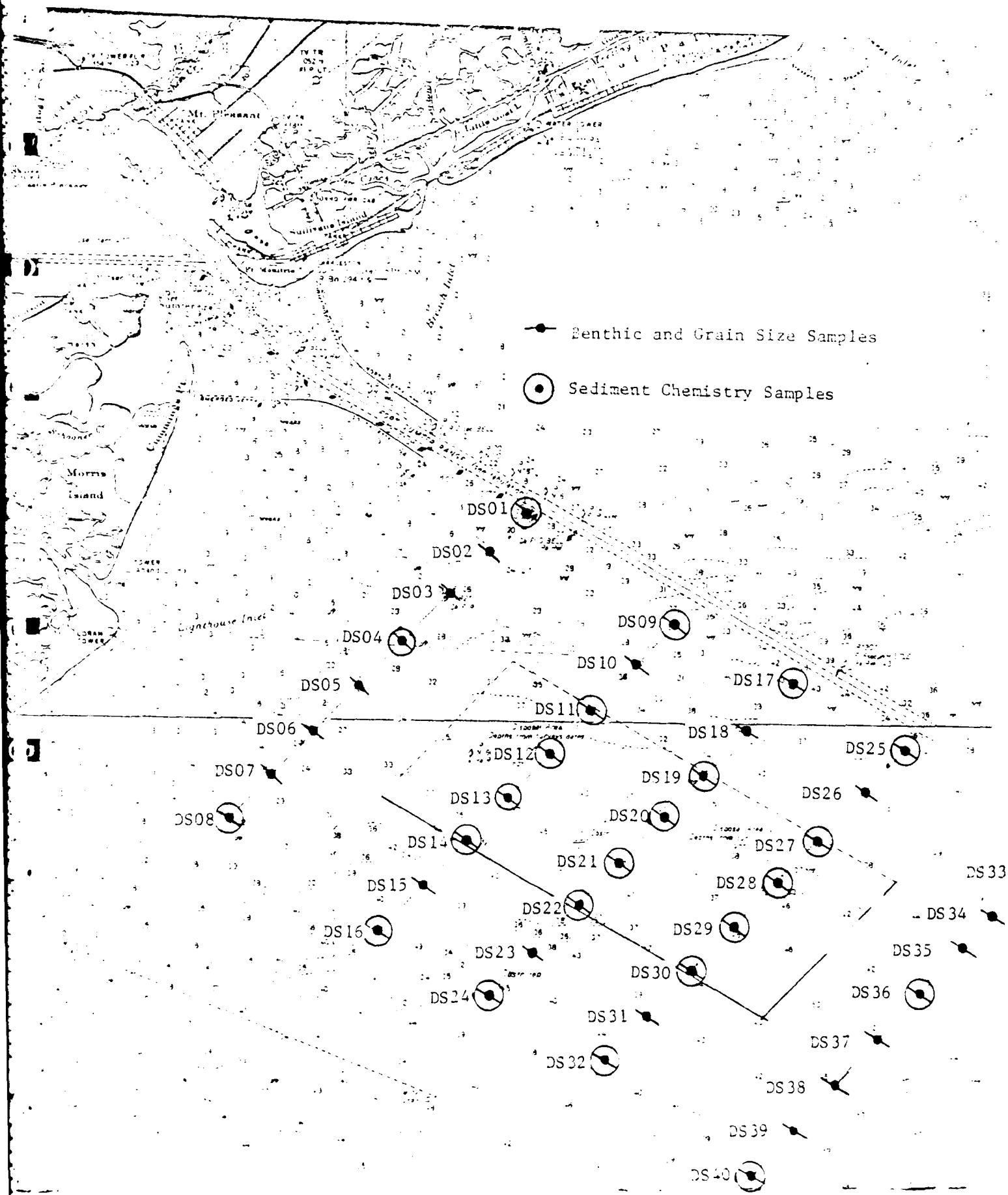
MATERIALS AND METHODS

Benthic Ecology

Sampling of the benthos was undertaken at 40 stations in and adjacent to the Charleston Harbor Ocean Disposal Area during August 1978. Stations were arranged in five transects, with each transect having eight stations (Fig.1). Three of the transects crossed the Ocean Disposal Area, while the other two extended outside the disposal site to the north-west and south-east, respectively. This array of stations provided a total of 12 sampling sites within the Ocean Disposal Area and 28 sites outside. Stations were located using Loran-C aboard the R/V ATLANTIC SUN, and the research vessel was anchored at each site for all sampling except dredge tows.

Quantitative benthic samples were collected using a 0.10 m^2 Smith-McIntyre grab. Five replicate samples were taken at each of the 40 stations. After measuring the volume of the grab samples, collected materials were washed through a 1 mm sieve. Organisms and sediment remaining on the sieve after washing were removed to appropriately labelled gallon jugs or bottles, stained with rose bengal, and preserved in 10% seawater formaldehyde. Collections were returned to the laboratory for sorting, identification, and enumeration of the fauna.

Quantitative samples were supplemented with qualitative samples of the epifauna taken using a 30 kg modified oyster dredge. The dredge consisted of a rectangular steel frame measuring 80 cm across the mouth, with a 1.5 m long bag of 2.5 cm stretch mesh polypropylene. A skirt of interlacing metal rings protected the bag from chafing. A single tow of five minutes was made at each station. After preliminary sorting of the catch in the field, unidentified epifaunal invertebrates and representative sample of firm substrates were



...ocation of the Charleston Harbor Ocean ...
...disposal area and the sampling stations.

preserved in 10% seawater formalin and returned to the laboratory for examination and identification.

After identification and enumeration of the fauna from quantitative samples, benthic community structure was analyzed using the following equations (Pielou, 1977):

(1) Species diversity (Shannon's formula)--

$$H' = -\Sigma pi \log_2 pi$$

where H' is the diversity in bits of information per individual, and $pi = \frac{ni}{N}$ or the proportion of the sample belonging to the i^{th} species.

(2) Species richness--

$$SR = \frac{S-1}{\ln N}$$

where S is the number of species and lnN is the natural logarithm of the total number of individuals of all species in the sample.

(3) Evenness or equitability--

$$J' = \frac{H'}{\log_2 S}$$

where H' is the species diversity in bits of information per individual and S is the number of species.

Water Chemistry

Surface and bottom water chemistry samples were collected at each station using a Van Dorn bottle. Parameters measured included temperature, salinity, dissolved oxygen, nitrates, silicates, phosphates, turbidity, and suspended and settleable solids. Water temperatures were measured in the field from stem thermometers mounted inside the Van Dorn bottles. All other samples were returned to the laboratory for analysis. Salinity samples were analyzed using a

Beckman Model 65TB Induction Salinometer. Dissolved oxygen was determined by the modified Winkler titration method (Strickland and Parsons, 1972). Nutrients were analyzed using a Technicon Auto Analyzer II. Turbidities were measured using a Hach Model 2100A turbidimeter. Solids were determined using standard Methods 224C and 224F (American Public Health Association, 1971).

Sediment Chemistry

Separate samples were taken with the Smith-McIntyre grab at 24 stations to obtain sediments for geochemical analysis (Fig. 1). Collected sediments were placed in one-gallon plastic bags, immediately frozen in dry ice, and delivered to the contracting officer at the Charleston District, U. S. Army Corps of Engineers for shipment to the Corps' South Atlantic Division Laboratory, Marietta, Georgia. At this laboratory, analyses were made to determine volatile solids, total organic carbon, BOD, Kjeldahl nitrogen, ammonia nitrogen as NH_3, nitrite nitrogen as NO_2, nitrate nitrogen as NO_3, oil and grease, lead, zinc, mercury, soluble phosphorus as PO_4, total phosphorus as PO_4, iron, cadmium, arsenic, chromium, nickel, copper, beryllium, selenium, and vanadium.

Sedimentologic Investigations

Bottom sediments were sampled using a Smith-McIntyre grab in the Charleston Entrance Channel and the Charleston Harbor Ocean Disposal Area. Bottom bedforms were directly observed, measured, and sampled by divers in the Ocean Disposal Area (Fig. 2).

Sediment samples were analyzed for quartz sand, calcium carbonate shell, silt, and clay content (weight percent). Silts and clays were separated from sand-size material by wet sieving or washing through a 62 μ screen. Silt was separated from clay by pipette analysis. Calcium carbonate shell was separated from the quartz sand-size material by HCl digestion. Quartz sand-size fractions were sieved for 20 minutes in a nest of ½ Ø Tyler screens; resultant grain

size distributions were described by statistical moment measures calculated by the GRAPE computer program. These grain size distributions were decomposed into their bi-normal components using the R-KE computer program (Clark, 1976).

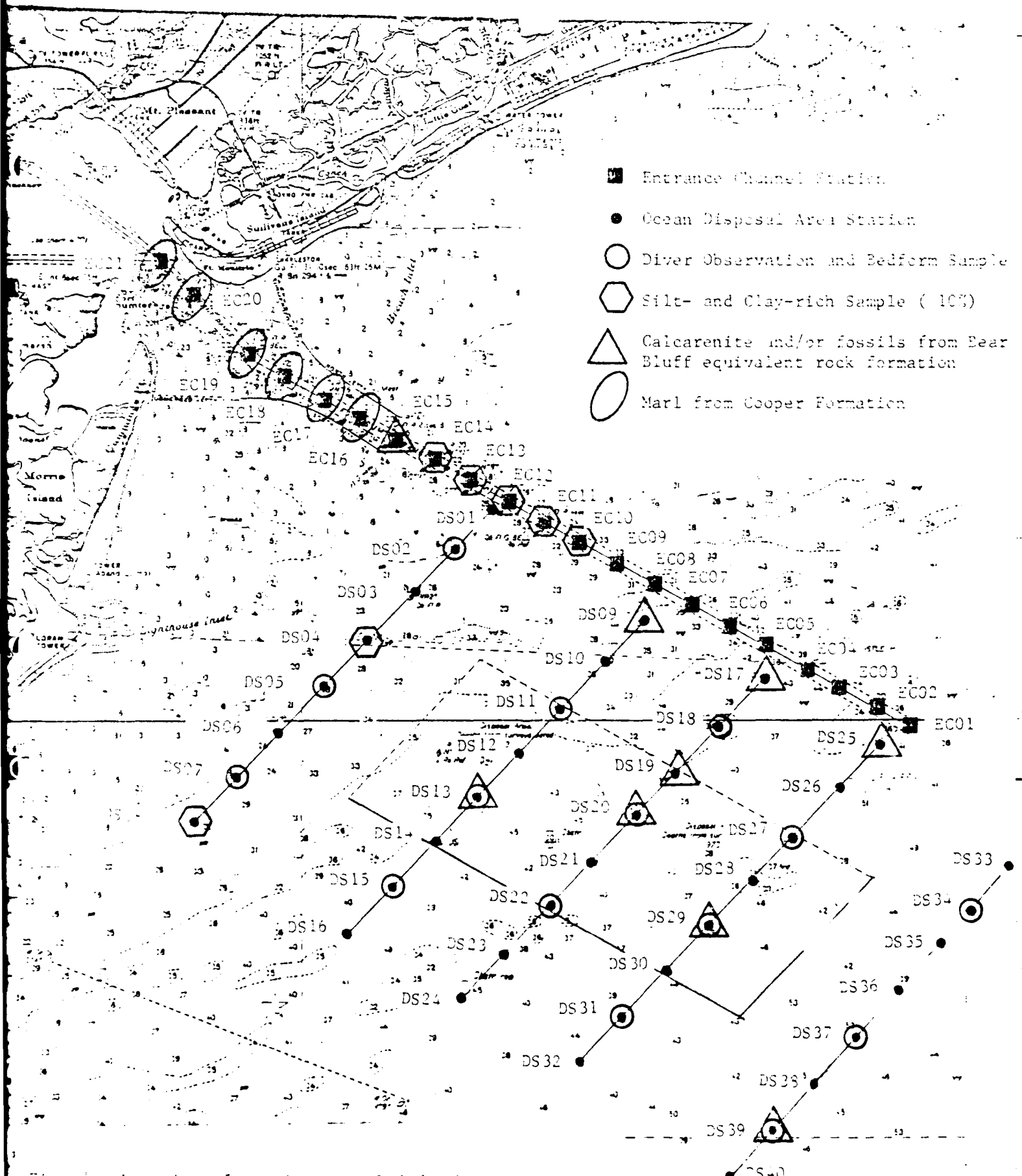


Fig. 4. Location of stations sampled for bottom sediments in the Charleston Entrance Channel and Charleston Harbor Disposal Area.

RESULTS AND DISCUSSION

Hydrography

The Charleston Harbor Ocean Disposal Area occurs in coastal marine waters beyond the harbor mouth, and salinities were all in the euhaline range (30-40°/oo) during field studies in August of 1978 (Table 1). Salinities were lowest along the innermost transect (averaging 33.38°/oo) and highest along the outermost transect (averaging 35.13°/oo). As expected, salinities at a given station were higher on bottom than at the surface, but differences seldom exceeded 3.0°/oo. Water temperatures were high and reflected the summer season when sampling was conducted. Temperature ranged from a low of 26.5°C in a bottom sample from station DS34 to a high of 30.1 C in a surface sample from station DS23. Most temperature readings were between 28 and 30 C, and differences from surface to bottom in most cases were rather small (Table 1). Oxygen concentrations were relatively high, given the warm temperatures and high salinity of the water. The lowest oxygen value observed was 4.0 mgl^{-1} in a surface sample from station DS02. Most values of oxygen ranged between 5.0-6.8 mgl^{-1} (Table 1). Values for other hydrographic parameters measured during the study, including turbidity, nutrients, and solids, are given in Table 1.

Epifaunal Assemblages

A total of 171 epifaunal (or partly epifaunal) macroinvertebrate species was distinguished in oyster dredge collections from the 40 stations in the study area during August, 1978 (Tables 2-42). In terms of species, the fauna was dominated by bryozoans (39 species), cnidarians (33 species), mollusks (28 species), and arthropods (27 species). These four groups accounted for 74.7% of the total number of species identified from the samples. Of the 171 species found, only

eight (the hydroid Clytia cylindrica, the bryozoans Membranipora tenuis, Microporella ciliata, and Parasmittina nitida, the sedentary polychaetes Sabellaria vulgaris and Hydroides dianthus, the bivalve Chama macerophylla, and the barnacle Balanus venustus) were found at 20 or more of the 40 stations. The most ubiquitous species was the barnacle Balanus venustus, which was present in samples from 29 stations. This species was common to abundant on suitable shelly substrates.

With a few exceptions, the study area was sparsely populated by epifaunal invertebrates. The bottom, consisting largely of sandy sediments with varying amounts of ground shell, provided an unsuitable substrate for most epibenthic species. The volume of most oyster dredge catches was very small, typically consisting of a few shells along with occasional decapods and echinoderms. Patches with large octocorals (Titanideum frauenfeldii), sponges, and other hard-bottom organisms were infrequent and quite localized, and none of the stations represented significant "live bottom" areas. Sand dollars (Mellita quinquiesperforata) were abundant in fine sand stations (DS01, DS02, DS03, and DS04) along the innermost transect, but elsewhere they were infrequent or absent.

Considerable variability was observed in the number of species from station to station in the study area (Fig.3). The number of species collected at a given site largely reflected the presence or absence of large shells, which provided substrate for the sessile epifauna. Species numbers were quite high where such substrates were present, and typically low where the bottom was sand or sand and ground shell only. A total of 40 or more species was identified in collections from nine of the stations (DS07, DS13, DS17, DS21, DS25, DS26, DS30, DS33, DS38). The maximum number of species (60) occurred in a sample from station DS25. The

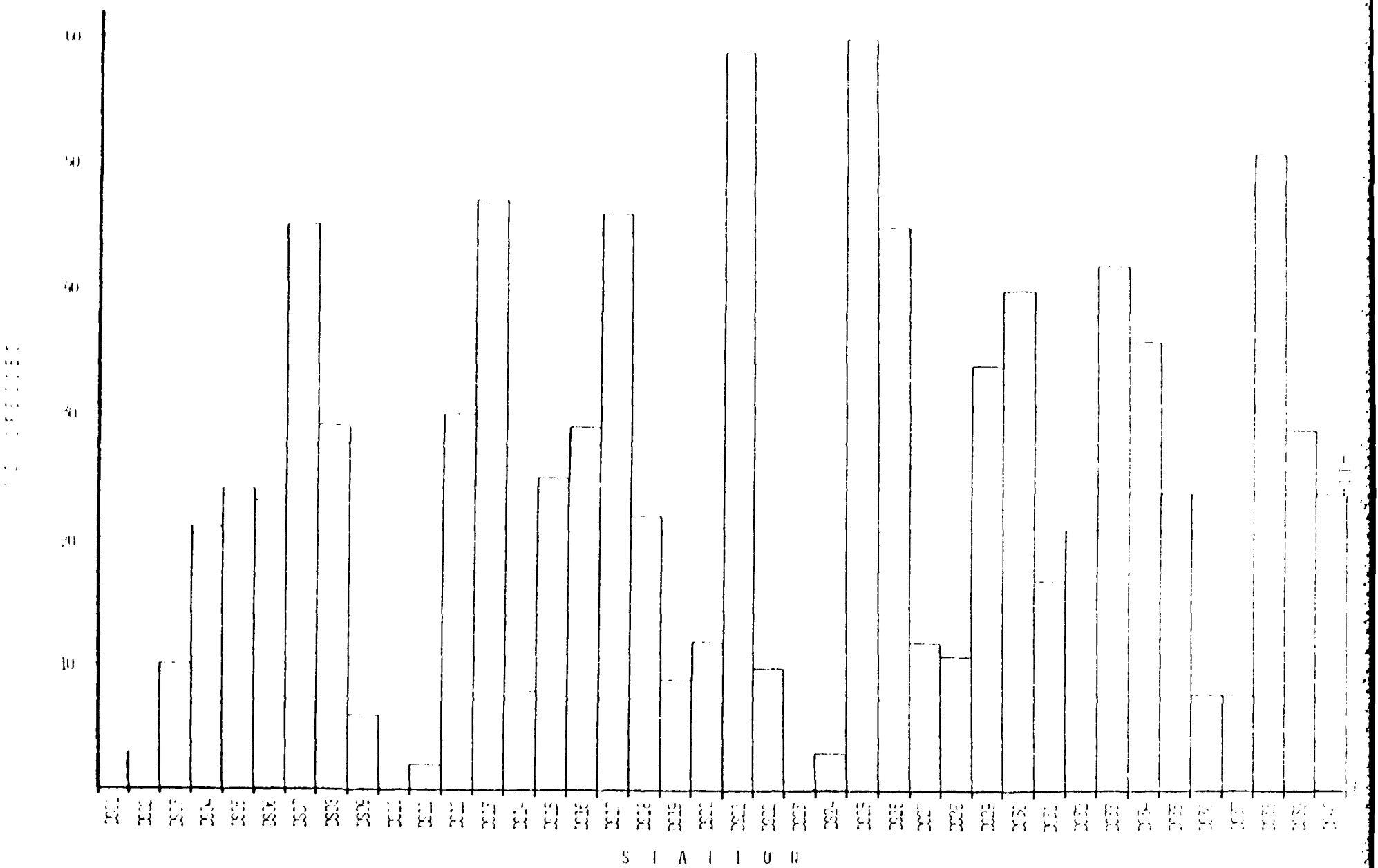


Fig. 3. Number of species in oyster dredge samples from 40 stations in the study area off Charleston, South Carolina.

were a number of species per station was 23.2.

No noteworthy differences was detected between the fauna of the Ocean Disposal Area and adjacent sites outside that could unequivocably be attributed to deposition of dredged material. Species numbers averaged 22.8 inside the Ocean Disposal Area and 23.3 outside. Faunal composition of the two areas was very similar, with 105 species identified inside the disposal area, 152 outside the site, and 80 species common to the two areas. The lower number of species from sites in the Ocean Disposal Area proper is believed to be due primarily to the smaller number of stations sampled there (only 12 of the 40 stations). In addition, the innermost and outermost transects, which did not cross the Ocean Disposal Area, were somewhat different in environmental characteristics and faunal composition from the three middle transects which did.

Infaunal Assemblages

A total of 33,952 benthic macroinvertebrates, representing 433 species, was obtained in quantitative Smith-McIntyre grab collections from the study area (Tables 43-82). Of the total number of organisms collected, 37.5% were polychaetes, 19.6% were the cephalochordate Branchiostoma caribaeum, 13.0% were amphipods, and 7.0% were pelecypods. Representatives of 24 other major taxa comprised the remaining 26% of individuals collected (Table 83). Polychaetes also dominated the fauna taxonomically, with 211 species accounting for 48.8% of the total. Pelecypods comprised 19.9% of the number of species, while decapods and gastropods contributed 9.9% each.

The most abundant single species in the samples was the lancelet, Branchiostoma caribaeum, which comprised nearly one-fifth of the total number of individuals. This species was collected at 31 of the 40 stations included in the study. B. caribaeum was either absent or present in low densities at

several of the shallower stations inshore, particularly those characterized by finer sediments (see Table 8). Maximum numbers were encountered at stations with bottoms of coarser sand; densities of 2750 and 2748 individuals m^{-2} were found at stations D033 and DS40, respectively. These concentrations exceed the maximum densities of 1343 lancelets m^{-2} recorded by Frankenberg and Leiper (1977) in summer samples from shelf waters off Georgia. In a study of the ecology and distribution of B. caribaeum on the shelf of the southeastern United States, Dory and Pierce (1967) found maximum densities of 204 individuals m^{-2} off Sapelo Island, Georgia. They noted that optimal conditions for aggregations of B. caribaeum included the presence of coarse, shelly, siliceous sand in areas of subsurface wave action and tidal current.

Ranking second in abundance was the sipunculid Aspidosiphon spinalis, which accounted for 3.4% of the total fauna. It was present in collections from 39 of the 40 stations sampled. Other species contributing more than 2% of the total fauna included the polychaetes Spiophanes bombyx, Goniadides carolinae, Spio pettiboneae, Nephtys picta, and Prionospio cristata, the lunulitiform bryozoan Cupuladria doma, the amphipod Trichophoxus floridanus, and nematodes of undetermined identity. The polychaete Spiophanes bombyx was the most ubiquitous species, occurring at all of the 40 stations sampled. Also widely distributed were the polychaete Nephtys picta (35 stations), Nemertina (undet.) A (37 stations), the amphipods Pseudoplatyischnopus floridanus and Tiron tropakis (33 stations each), nematodes (33 stations), the decapod Pagurus longicarpus (32 stations), and the pelecypods Tellina probiya and Tryllia concentrica (30 stations each).

Species diversity (H') ranged from 3.4 to 6.1 in samples from the study area (Table 4, Fig.). Diversity (H') did not reveal any significant

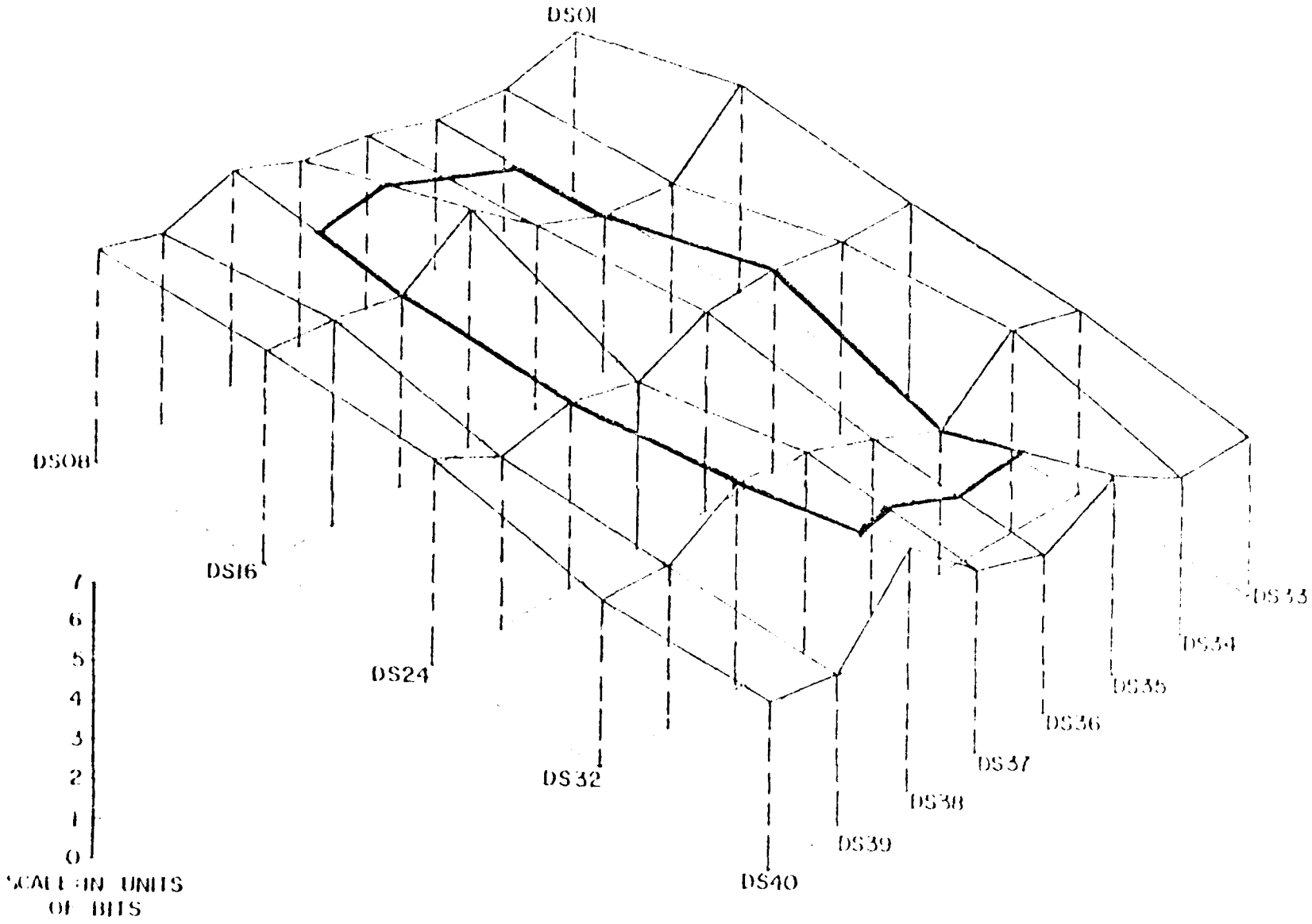


Figure 4. Species diversity values (H') for stations in and adjacent to the Charleston Harbor Ocean Disposal Area. Heavy solid lines indicate boundaries of disposal area.

[illegible] between stations inside and outside the disposal area. The mean value for H' was [illegible] for stations in the disposal area and [illegible] for the stations outside the area. Diversity values over the entire study area were generally higher than those observed in shallow shelf waters of Virginia (Boesch, 1972) and Rhode Island (Sanders, et al., 1962). The high observed H' is attributable in part to the species richness component of diversity, which ranged from 5.52 at DS10 to 22.00 at DS38 (Table B4). The number of species collected at these stations was 31 and 173, respectively. Neither the number of species per station nor species richness (SR) was significantly different between stations inside and outside the disposal area (ANOVA, $p > 0.5$). High diversities were also partly attributable to the evenness component (J'), which measures the distribution of individuals among species present. In spite of the numerical dominance of Branchiostoma caribaeum, 19 other species each contributed more than 1% of the total number of individuals collected. Yet these 20 species combined to account for only 56.4% of the total number of animals present. This is a substantially more even distribution of individuals within the species list than Dorjes (1972) found on transects off Georgia, where the 10 most abundant species contributed 86% of the total. Likewise, the 10 most abundant species of shallow nearshore infaunal communities at Murrells Inlet, South Carolina, contributed 80.2% of the total number of animals collected (Knott, Calder, and Van Dolah, unpublished data).

Many more species were identified from the study area off Charleston than were reported from similar areas off the Georgia coast in the recent publications. Collections from supratidal, intertidal, and subtidal shallow shelf areas out to depths of about 15 m off Sapelo Island yielded 295 species (Dorjes, 1972). Three stations sampled by Frankenberg and Leiper (1977) off Sapelo Island, with

sediment characteristics [illegible] the present study [illegible], yielded an average of [illegible] species [illegible] per station. By comparison, an average of 90 species per [illegible] were obtained from the study area of Wigley et al. (Table 5-1). As the only previous study of this nature in South Carolina, 123 species were identified in samples from nine intertidal and nine subtidal stations (maximum depths of 3 m) in the Murrells Inlet area (Knott, Calder, and Van Dolah, unpublished data). The infauna of sandy shelf areas on the southeastern continental shelf is therefore far from impoverished taxonomically. Likewise, faunal densities appear to be relatively high.

Sediment Geochemistry

Data resulting from the chemical analysis of sediment samples collected in and adjacent to the Charleston Harbor Ocean Disposal Area are presented in Table 5-5. These analyses did not reveal any substance exceeding maximum recommended for the determination of the acceptability of dredged material disposal to the nation's waters. Suspended sediment-time curves for the samples are given in Figs. 5-28.

Sedimentologic Investigations

A) Charleston Harbor Entrance Channel:

Analyses of bottom grab samples taken every 0.5 nautical mile from a point opposite Ft. Moultrie to the seaward beginning of the maintained channel have defined 3 distinct composition zones:

1) scoured bedrock (calcarenite and marl) covered with a thin veneer of calcium carbonate shell-rich quartz sand stretches between Ft. Moultrie and the seaward end of the jetties (stations EC21 to EC13, Fig. 2 and Table 5-6).

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CORPS OF ENGINEERS, 511 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30061

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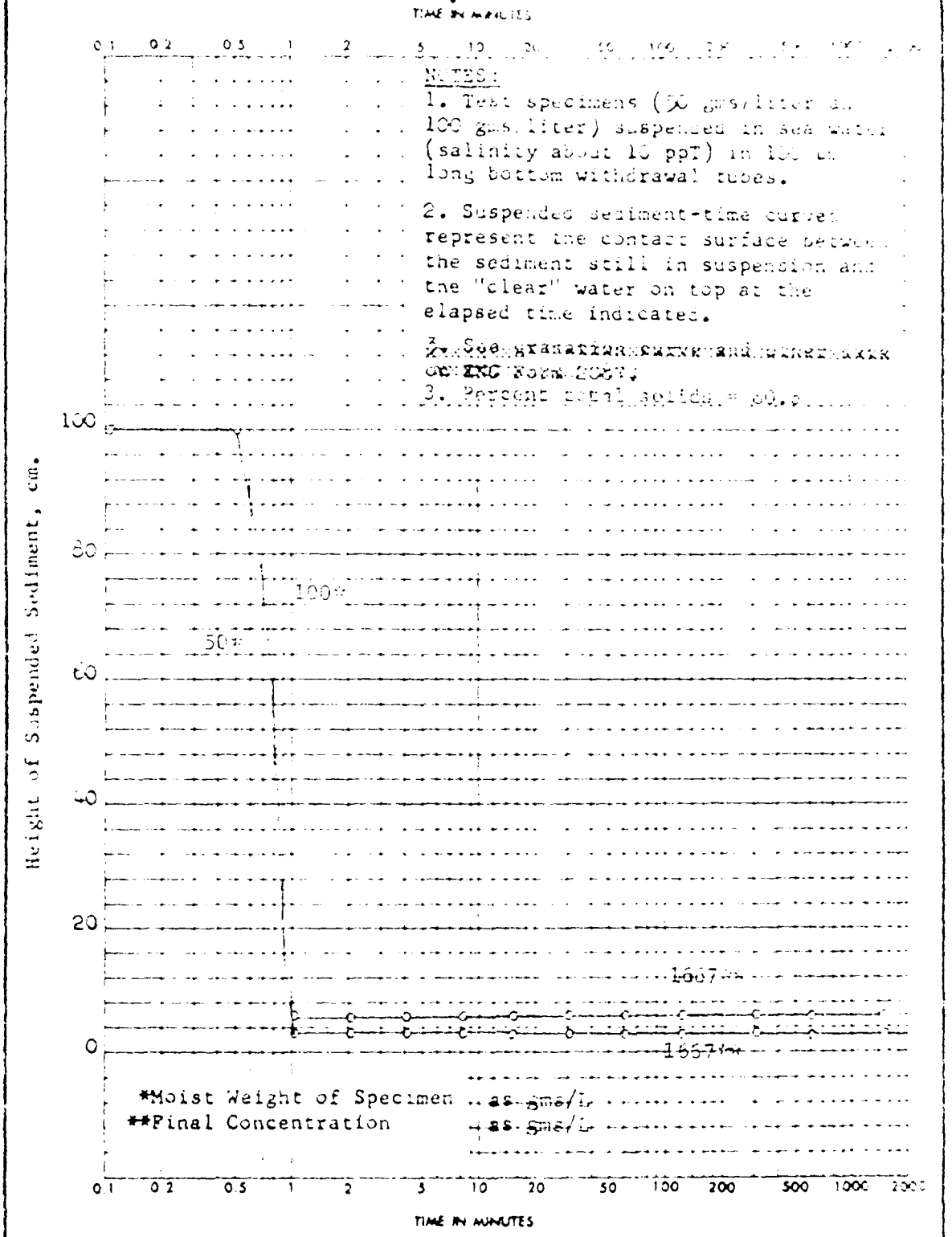

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AREA	Ocean Disposal Area	Lab No. 38-758	
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SUSPENDED SEDIMENT-TIME CURVES (TRANSLUCENT)

SAD Form 3023
26 Oct 72

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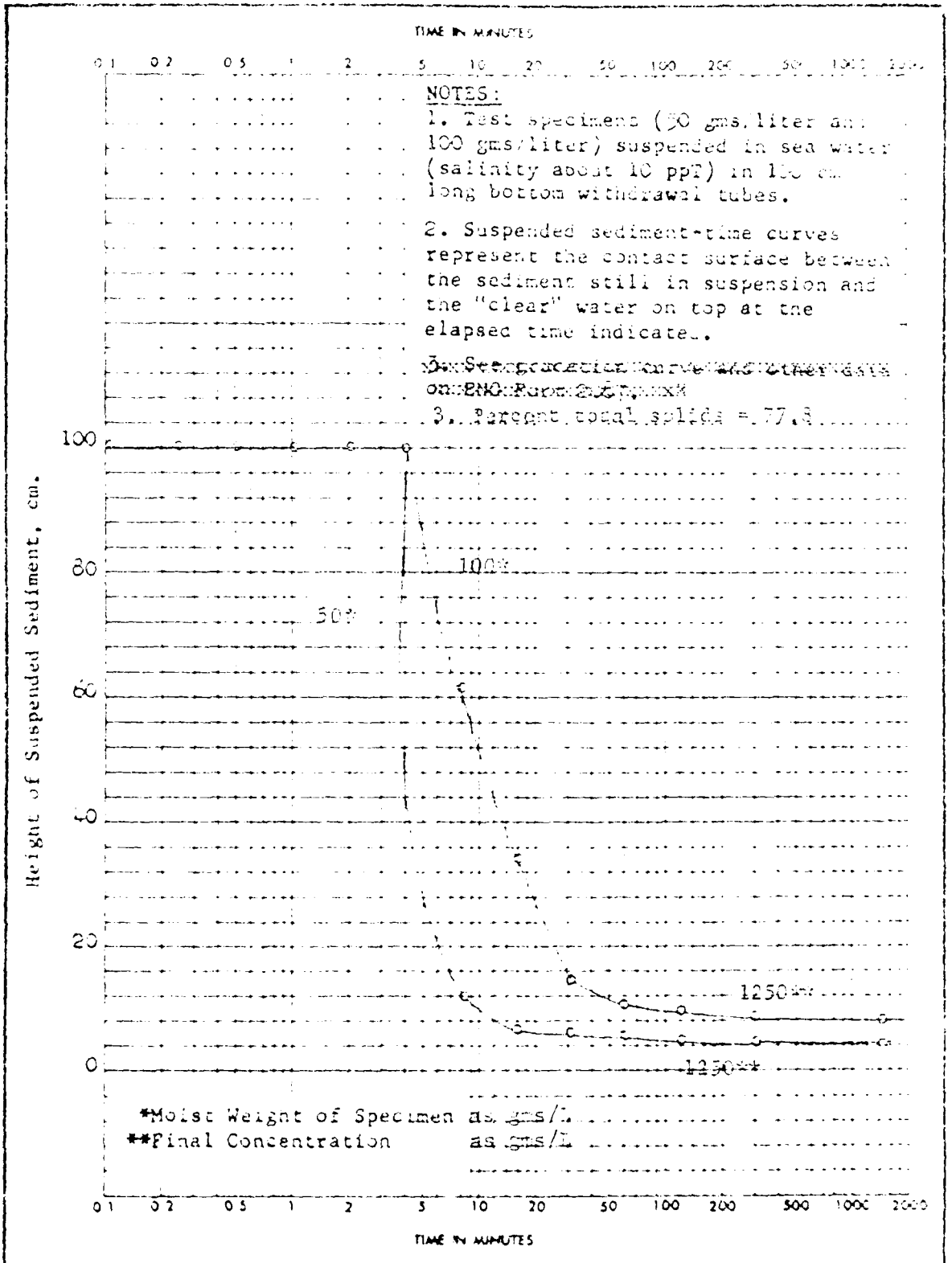
Work Order No. 1103



PROJECT CHARLESTON DISTRICT Charleston Harbor

AREA Ocean Disposal Area Lab No. 38-760

BORING NO -- SAMPLE NO 78144 DEPTH ft -- DATE 4 April 1979

SUSPENDED SEDIMENT-TIME CURVES (TRANSLUCENT)

SAD Form 3023
26 Oct 72

Figure 1. Suspended sediment time curves for samples from station 9504.

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CORPS OF ENGINEERS, 510 CUBB DRIVE, MARIETTA, GEORGIA 30060

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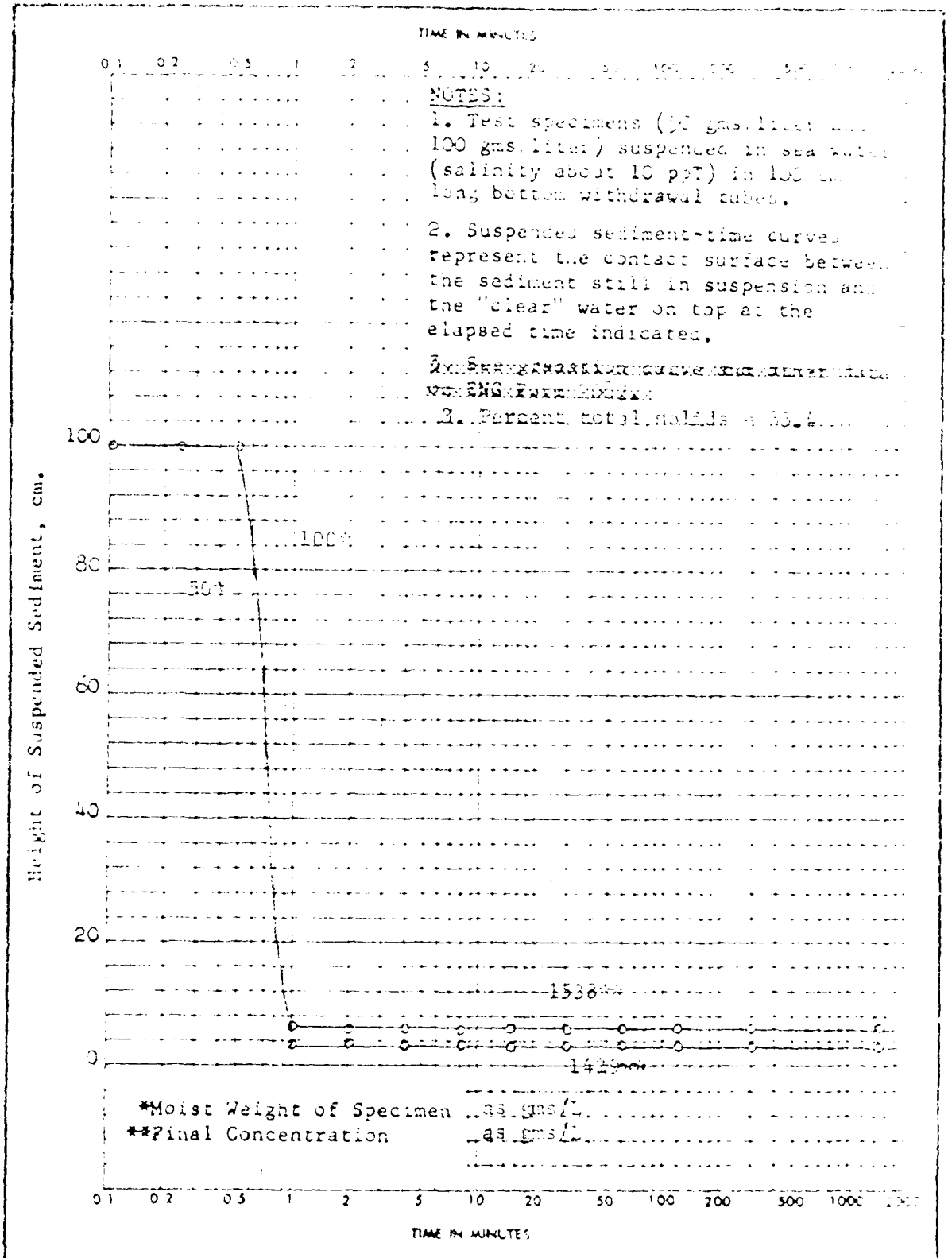

PROJECT	CHARLESTON DISTRICT Charleston Harbor
AREA	Ocean Disposal Area Lab No. 35-759
BORING NO.	-- SAMPLE NO. 78148 DEPTH El. - DATE 4 April 1979

SUSPENDED SEDIMENT-TIME CURVES TRANSLUCENT

SAD Form 3023
26 Oct 72

Figure 7. Suspended sediment-time curves for samples from Cut L (308).

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CORPS OF ENGINEERS, 510 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

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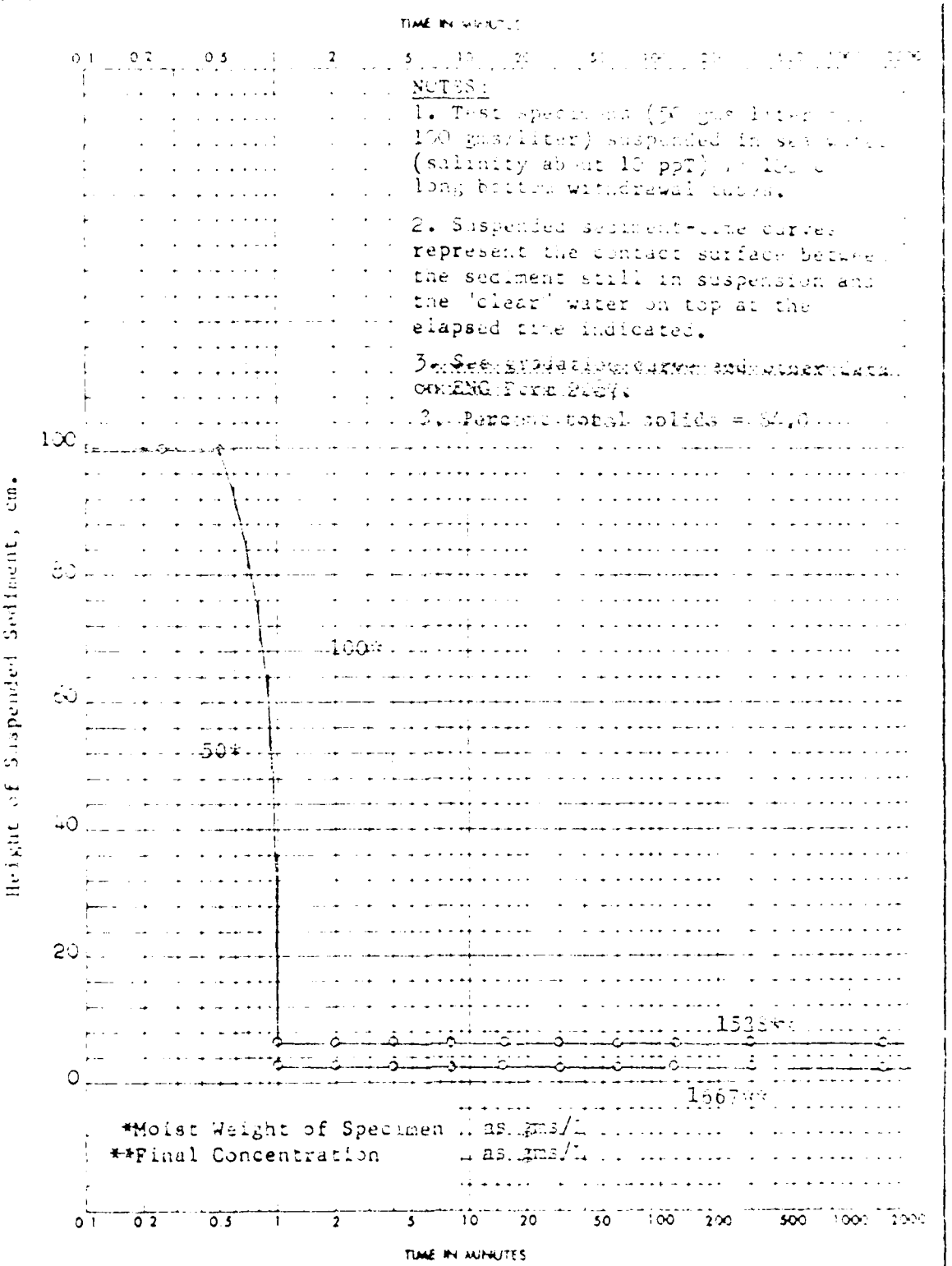

PROJECT CHARLESTON DISTRICT Charleston Harbor

AREA Ocean Disposal Area Lab No. 38-810

BORING NO -- SAMPLE NO 78149 DEPTH ft -- DATE 4 April 1978

SUSPENDED SEDIMENT-TIME CURVES (TRANSLUCENT)

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CORPS OF ENGINEERS, 510 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

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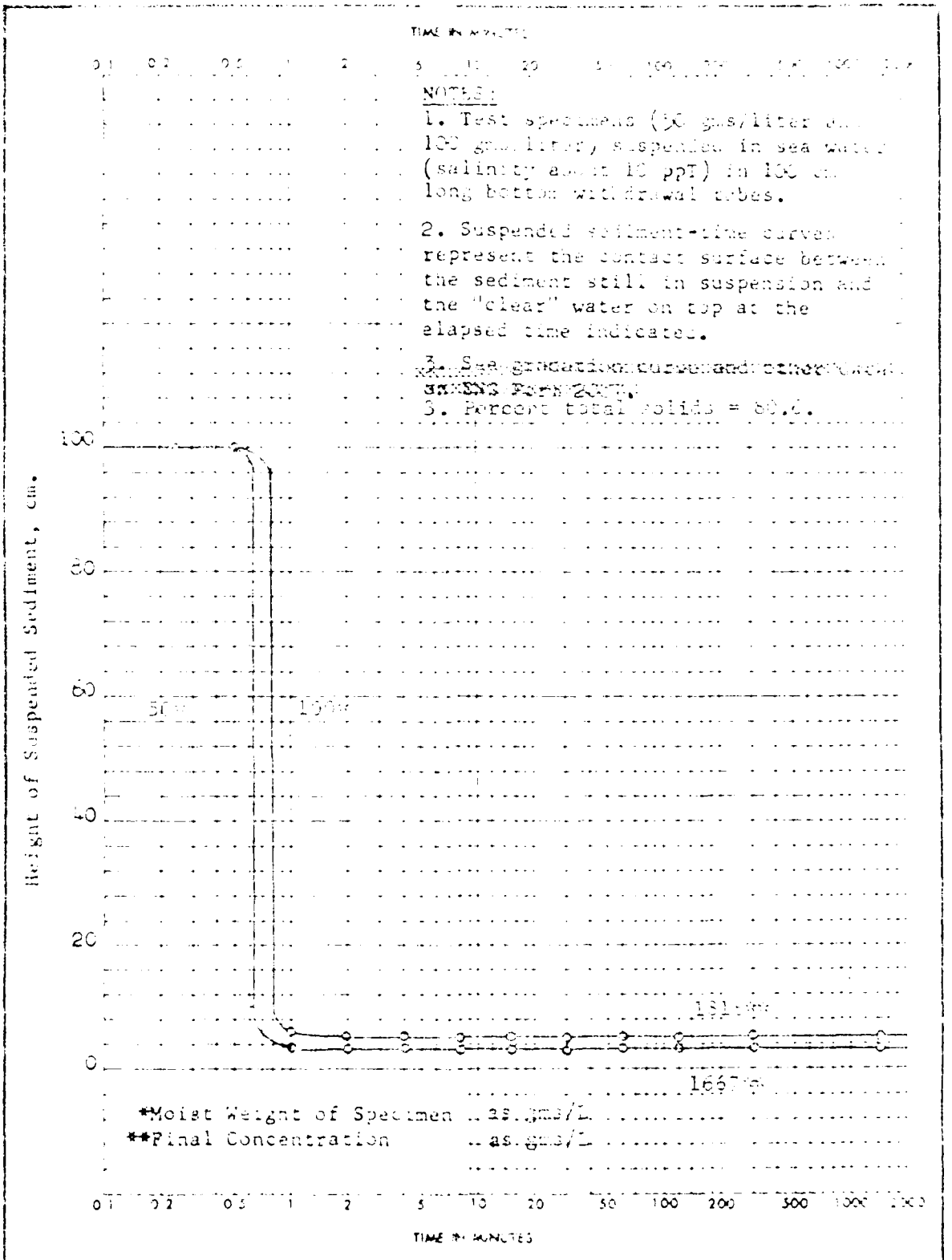

PROJECT	Charleston District, Charleston Harbor				
AREA	Ocean Disposal Area			Lab No. 35-740	
BORING NO	--	SAMPLE NO	78111	DEPTH ft	--
DATE	April 1979				

SUSPENDED SEDIMENT-TIME CURVES — TRANSLUCENT

SAD Form 3023
26 Oct 72

Figure 9. Suspended sediment time curves for samples from station 1911.

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CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

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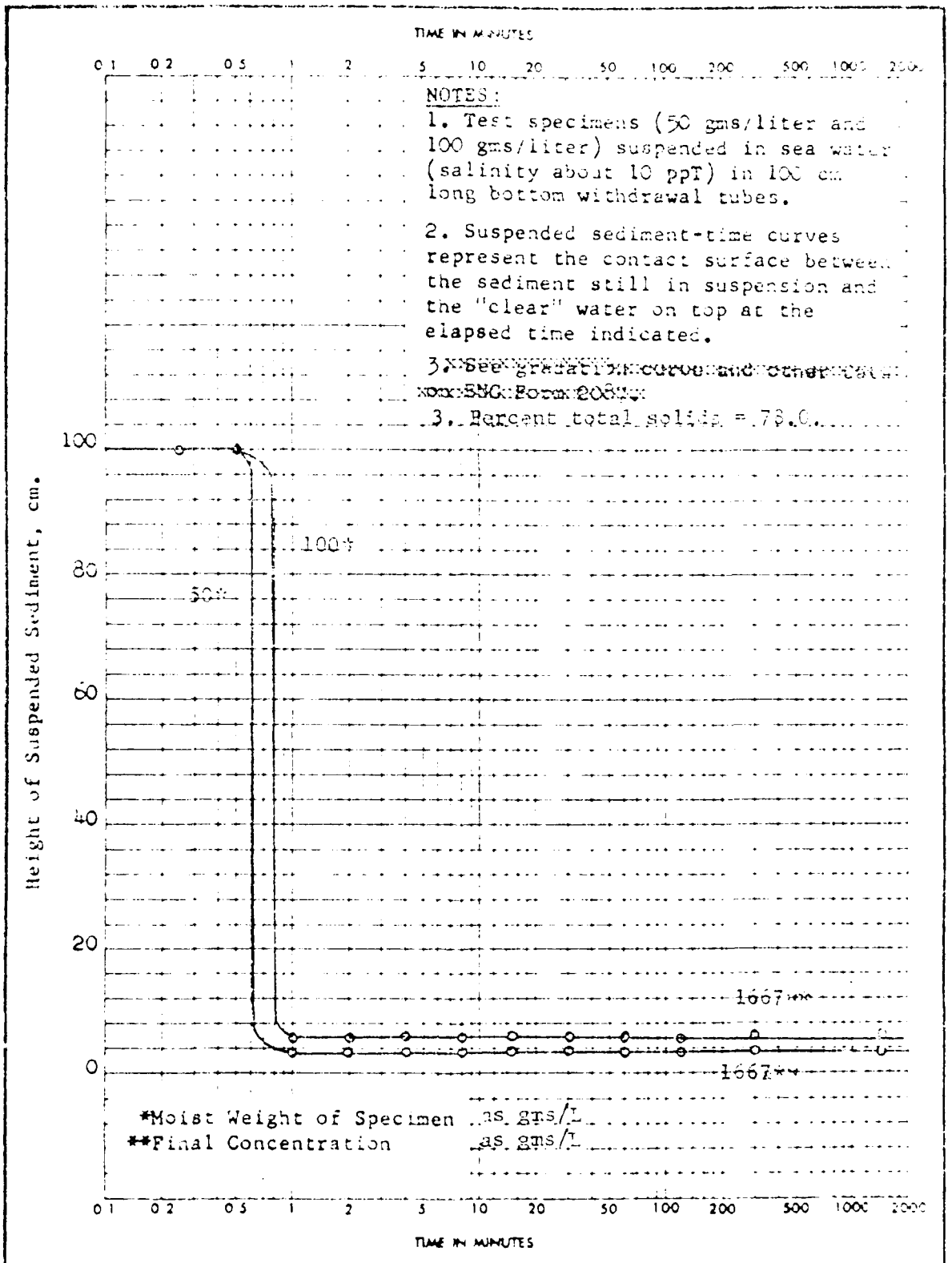

PROJECT: CHARLESTON DISTRICT Charleston Harbor

AREA: Ocean Disposal Area Lab No. 3S-747

BORING NO. -- SAMPLE NO. 78112 DEPTH ft -- DATE 4 April 1979

SUSPENDED SEDIMENT-TIME CURVES TRANSLUCENT

SAD Form 3023
26 Oct 72

Figure 10. Suspended sediment-time curves for samples from station DS12.

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CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

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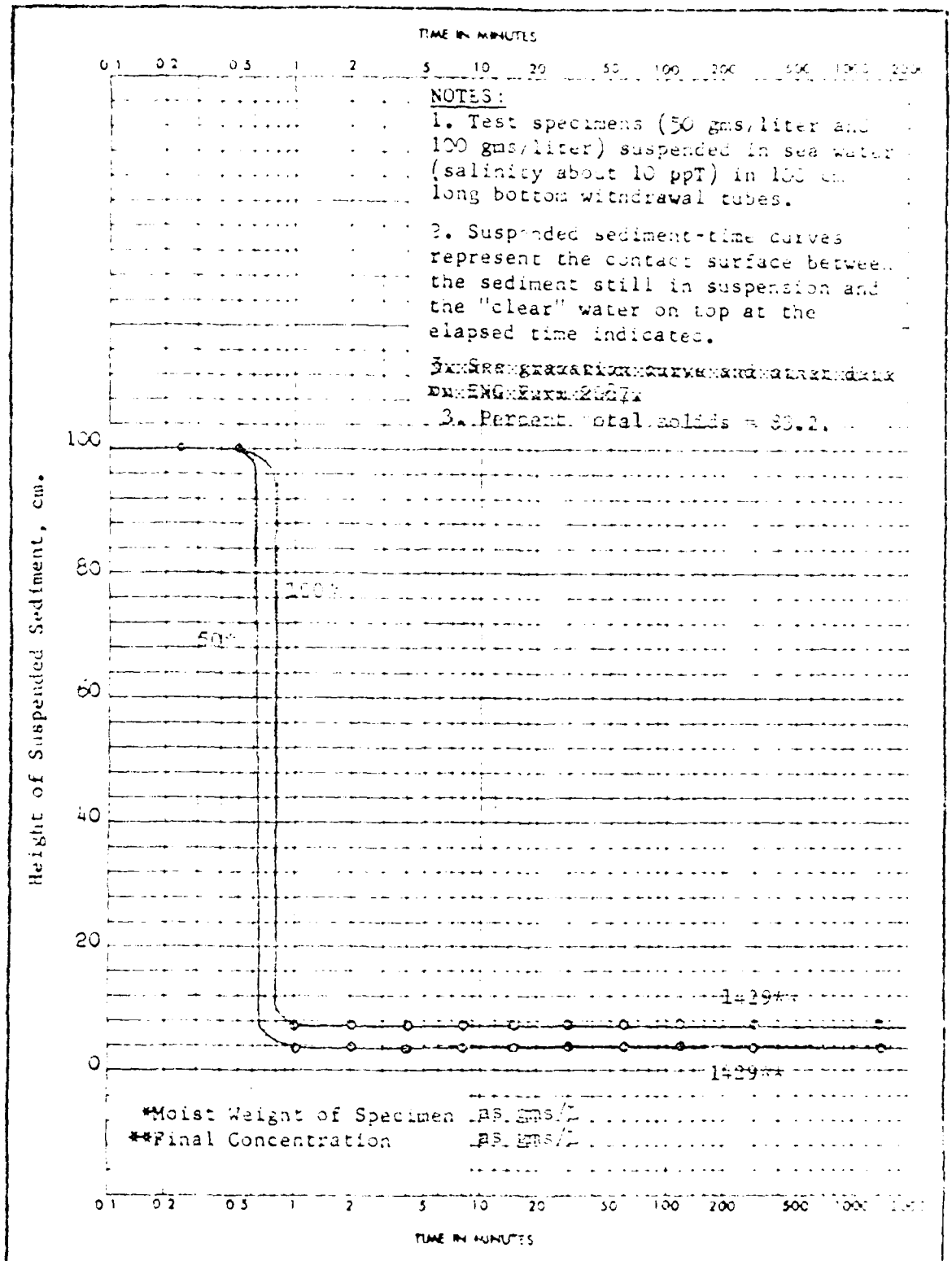

PROJECT CHARLESTON DISTRICT Charleston Harbor
AREA Ocean Disposal Area Lab No. 3S-7[illegible]
BORING NO -- SAMPLE NO 78113 DEPTH El -- DATE April 1978

SUSPENDED SEDIMENT-TIME CURVES TRANSLUCENT

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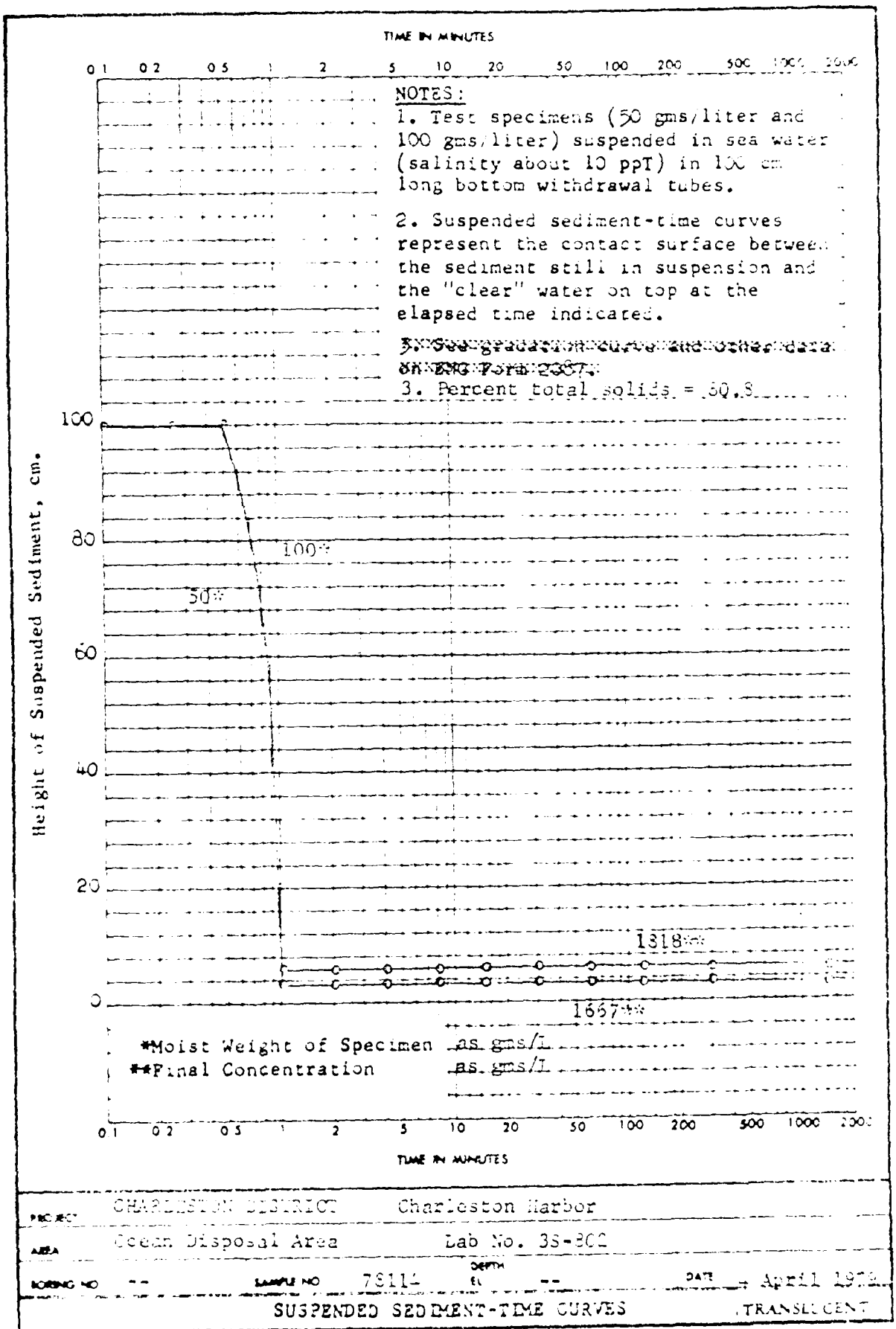
Figure 11. Suspended sediment-time curves for samples from static DS13.



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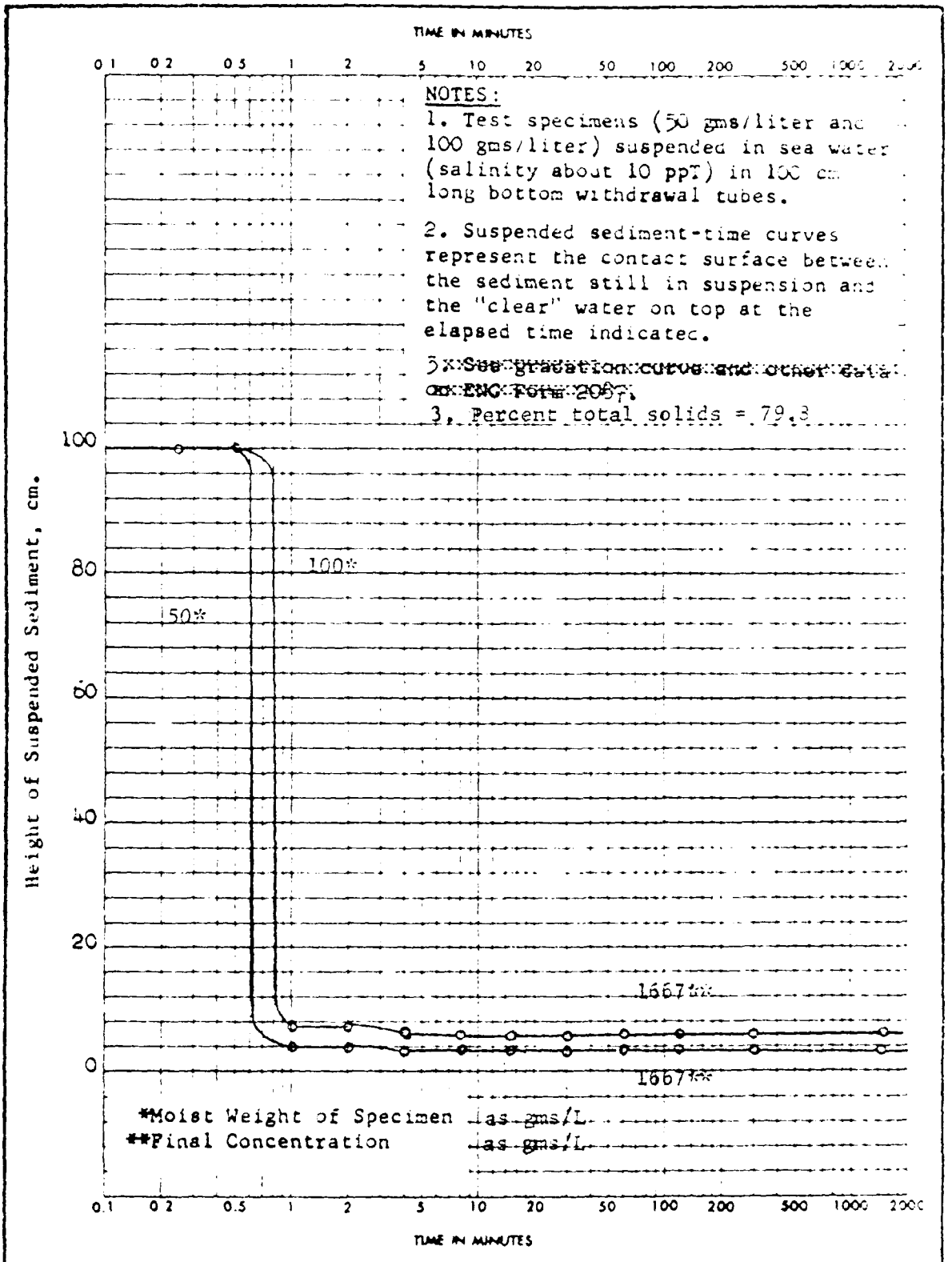
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SACEN-78-53
Work Order No. 1383

Figure 17. Suspended sediment-time curves for samples from station 9814.



DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

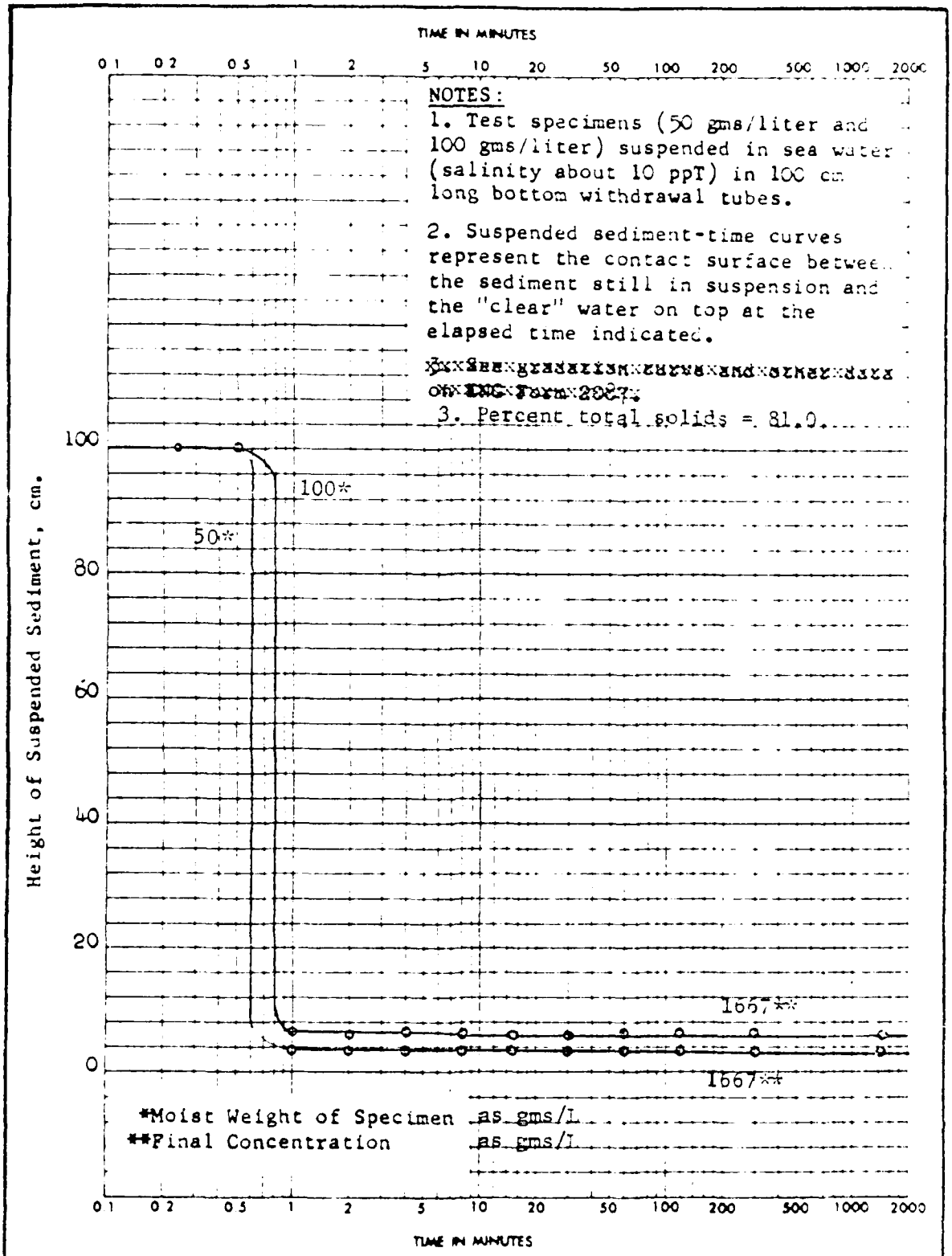
Regn. No. SACDC-78-53
Work Order No. 1383

PROJECT	CHARLESTON DISTRICT		Charleston Harbor		
AREA	Ocean Disposal Area			Lab No. 3S-749	
BORING NO	--	SAMPLE NO	78116	DEPTH EL --	DATE 4 April 1979

SUSPENDED SEDIMENT-TIME CURVES TRANSLUCENT

SAD Form 3023
26 Oct 72

Figure 18. Suspended sediment-time curves for samples from station DS16.

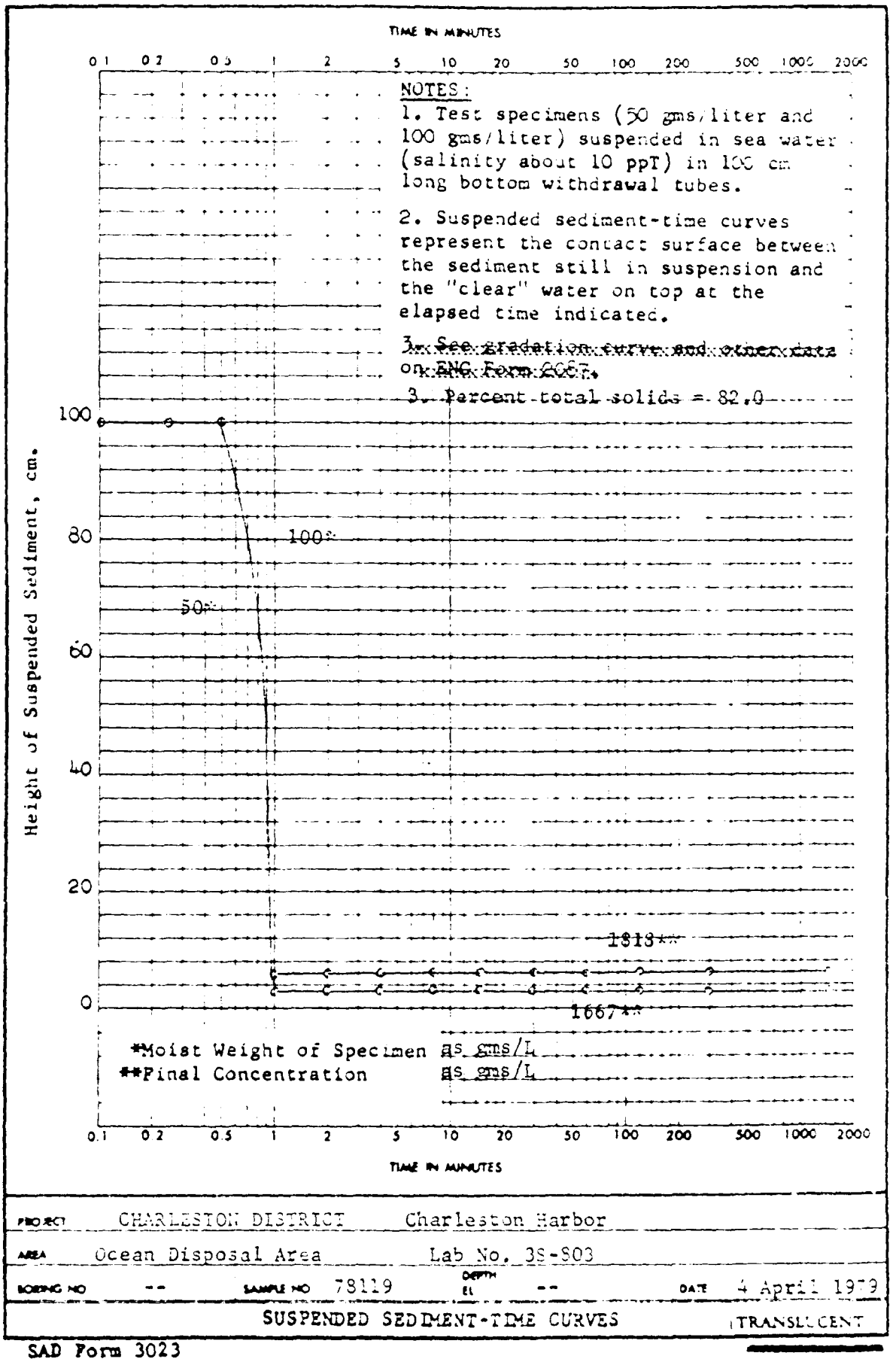


DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SACEC-78-53
Work Order No. 1383

SAD Form 3023
26 Oct 72

Figure 14. Suspended sediment-time curves for samples from station DS17.



DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY, CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

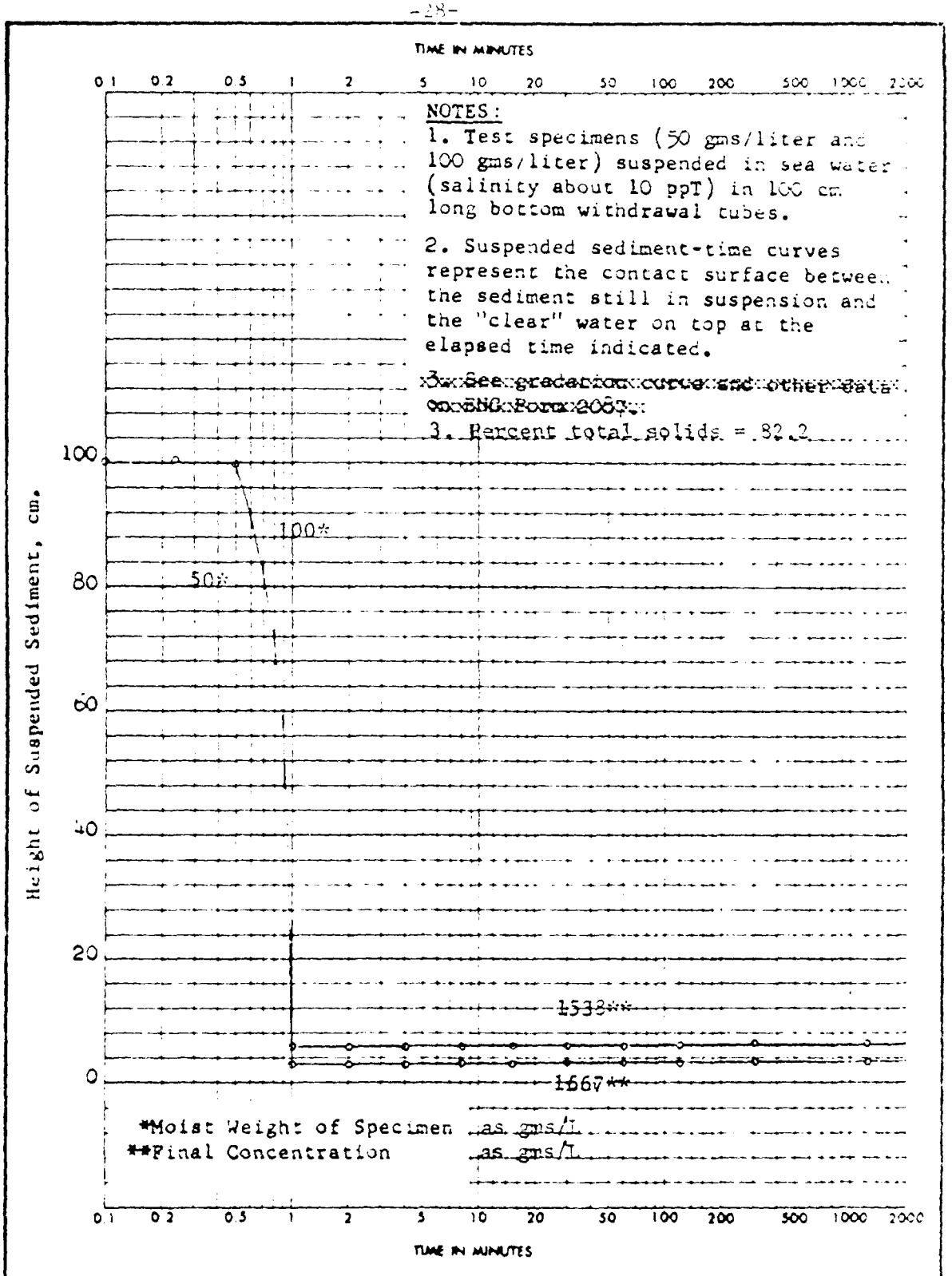
Reqn. No. SACW-78-53
Work Order No. 1843

SAD Form 3023
26 Oct 72

Figure D5. Suspended sediment-time curves for samples from stati 0819.

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SACEC-78-53
Work Order No. 1383



PROJECT	CHARLESTON DISTRICT			Charleston Harbor			
AREA	Ocean Disposal Area				Lab No. 38-804		
BORING NO	--	SAMPLE NO	78120	DEPTH ft	--	DATE	4 April 1979

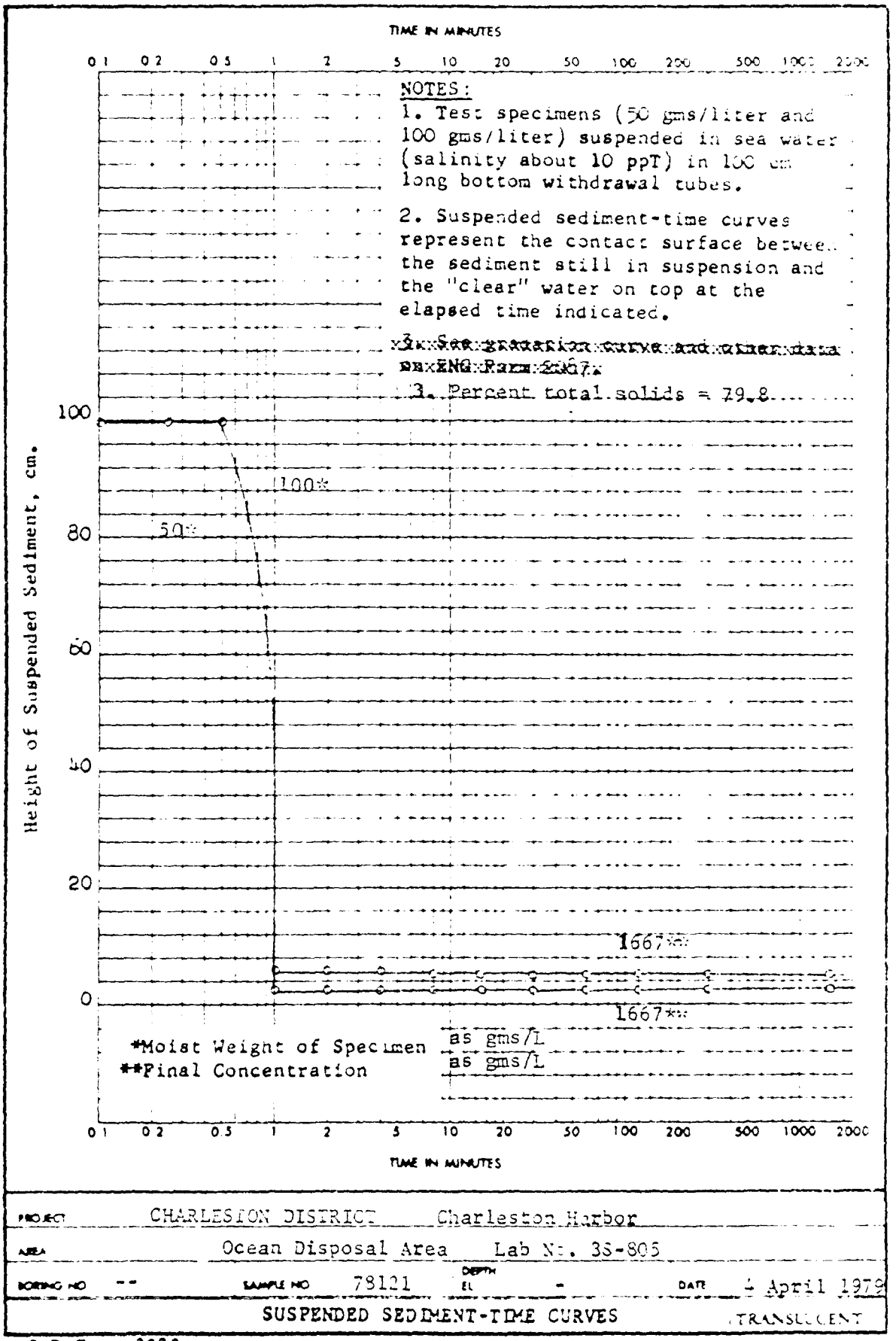
SUSPENDED SEDIMENT-TIME CURVES (TRANSLUCENT

SAD Form 3023
26 Oct 72

Figure 14. Suspended sediment-time curves for samples from stati[illegible] DS20.

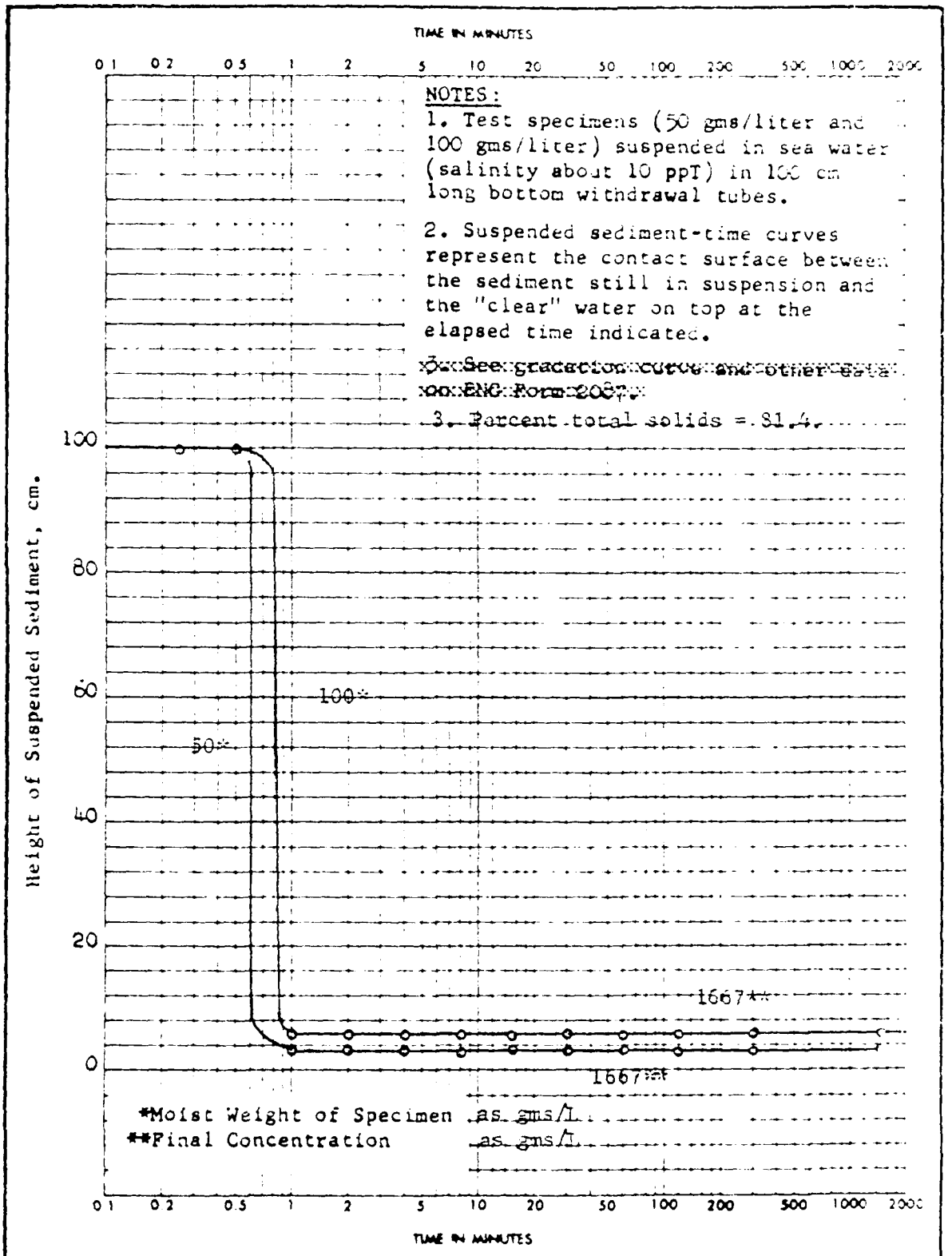
DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SACEC-78-53
Work Order No. 1383



SAD Form 3023
26 Oct 72

Figure 17. Suspended sediment-time curves for samples from stat [illegible] 1821.

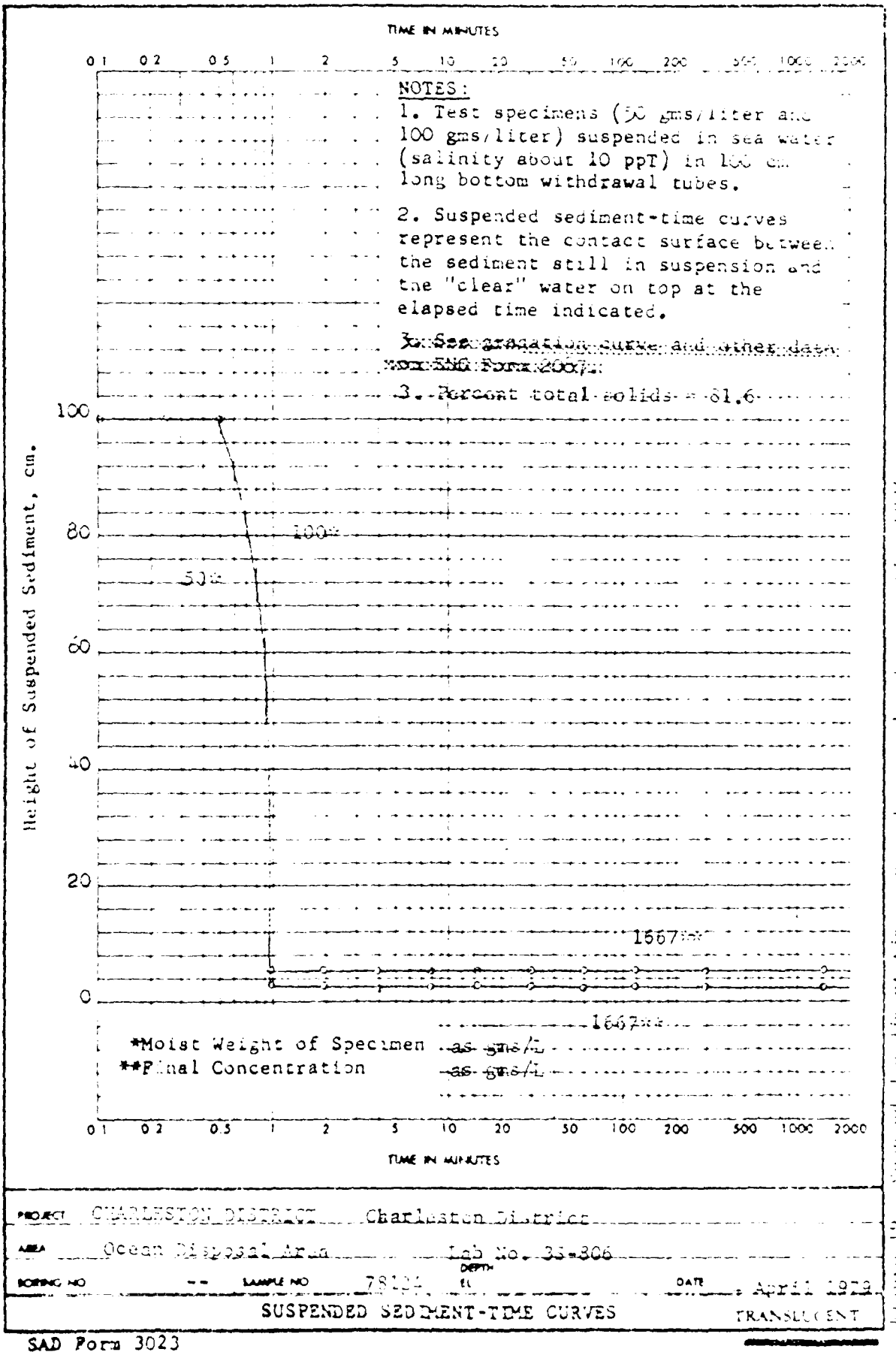


DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY, CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SACEC-78-53
Work Order No. 1383

SAD Form 3023
26 Oct 72

Figure 18. Suspended sediment-time curves for samples from station DS22.



DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

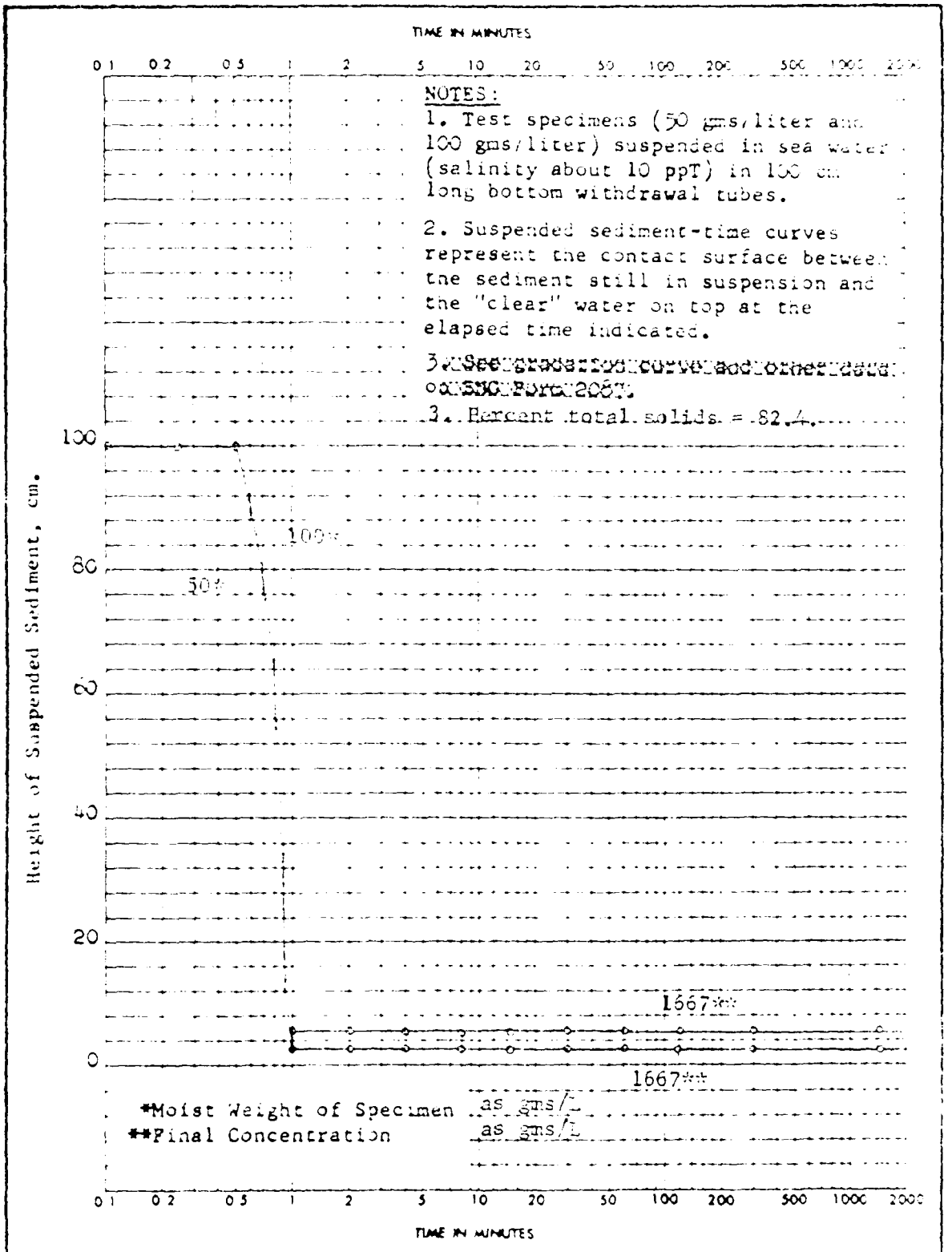
Regn. No. SACRC 78-53
Work Order No. 1383

SAD Form 3023
26 Oct 72

Figure 19. Suspended sediment-time curves for samples from station 1824.

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SAVOD-78-53
Work Order No. 1183



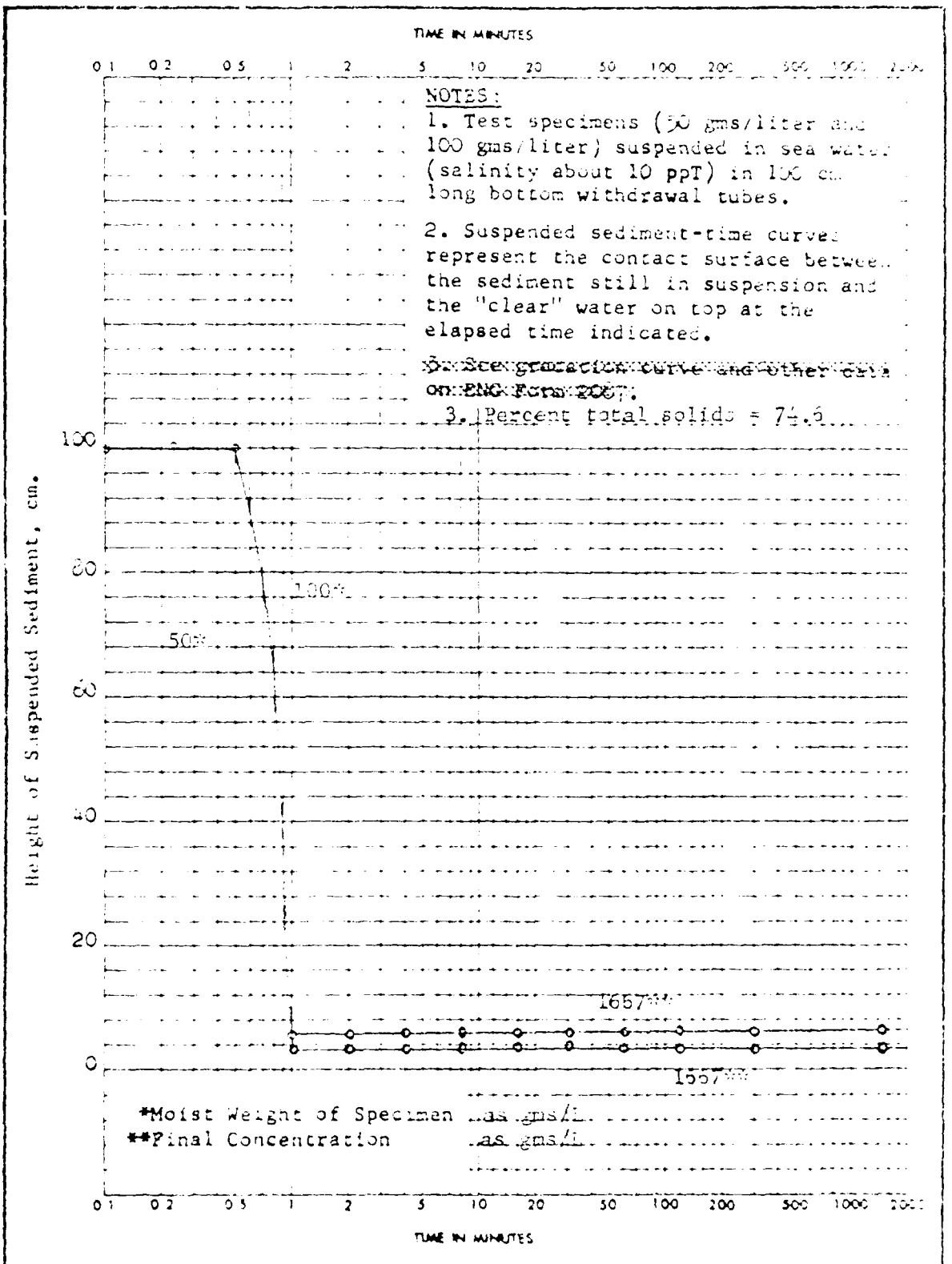
PROJECT CHARLESTON DISTRICT Charleston Harbor
AREA Ocean Disposal Area Lab No. 3S-307
BORING NO -- SAMPLE NO 78125 DEPTH EL -- DATE 4 April 1978
SUSPENDED SEDIMENT-TIME CURVES (TRANSLUCENT)

SAD Form 3023
26 Oct 72

Figure 20. Suspended sediment-time curves for samples from station DS25.

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 510 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SAOPO-78-53
Work Order No. 1383



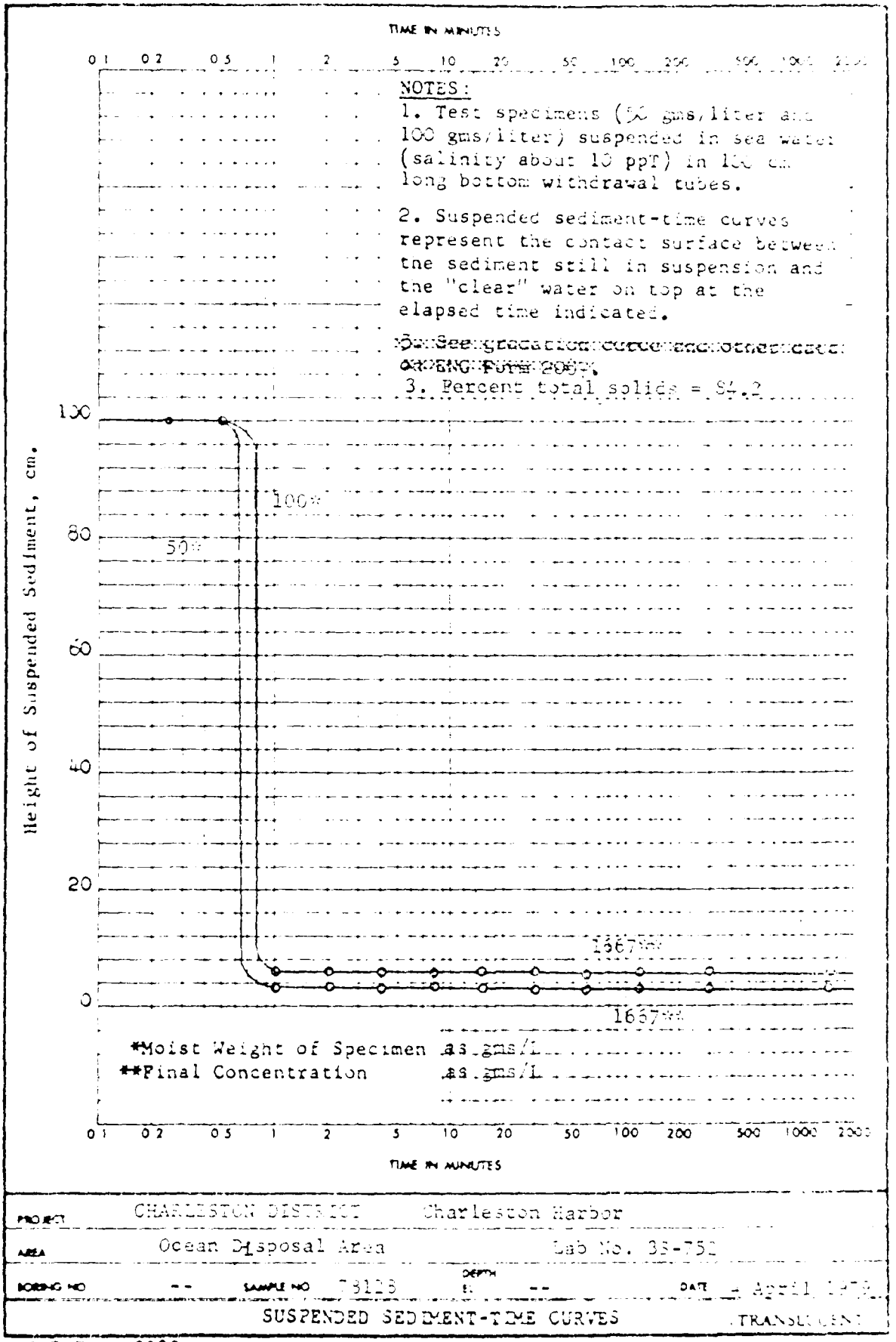
PROJECT CHARLESTON DISTRICT Charleston Harbor
AREA Ocean Disposal Area Lab No. 38-808
BORING NO -- SAMPLE NO 78127 DEPTH ft -- DATE 4 April 1978
SUSPENDED SEDIMENT-TIME CURVES TRANSLUCENT

SAD Form 3023
26 Oct 72

Fig. [illegible] Suspended sediment time curves for samples from station DS27.

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SACEC-78-53
Work Order No. 1883



PROJECT CHARLESTON DISTRICT Charleston Harbor

AREA Ocean Disposal Area Lab No. 38-752

BORING NO -- SAMPLE NO 78123 DEPTH ft. -- DATE April 1978

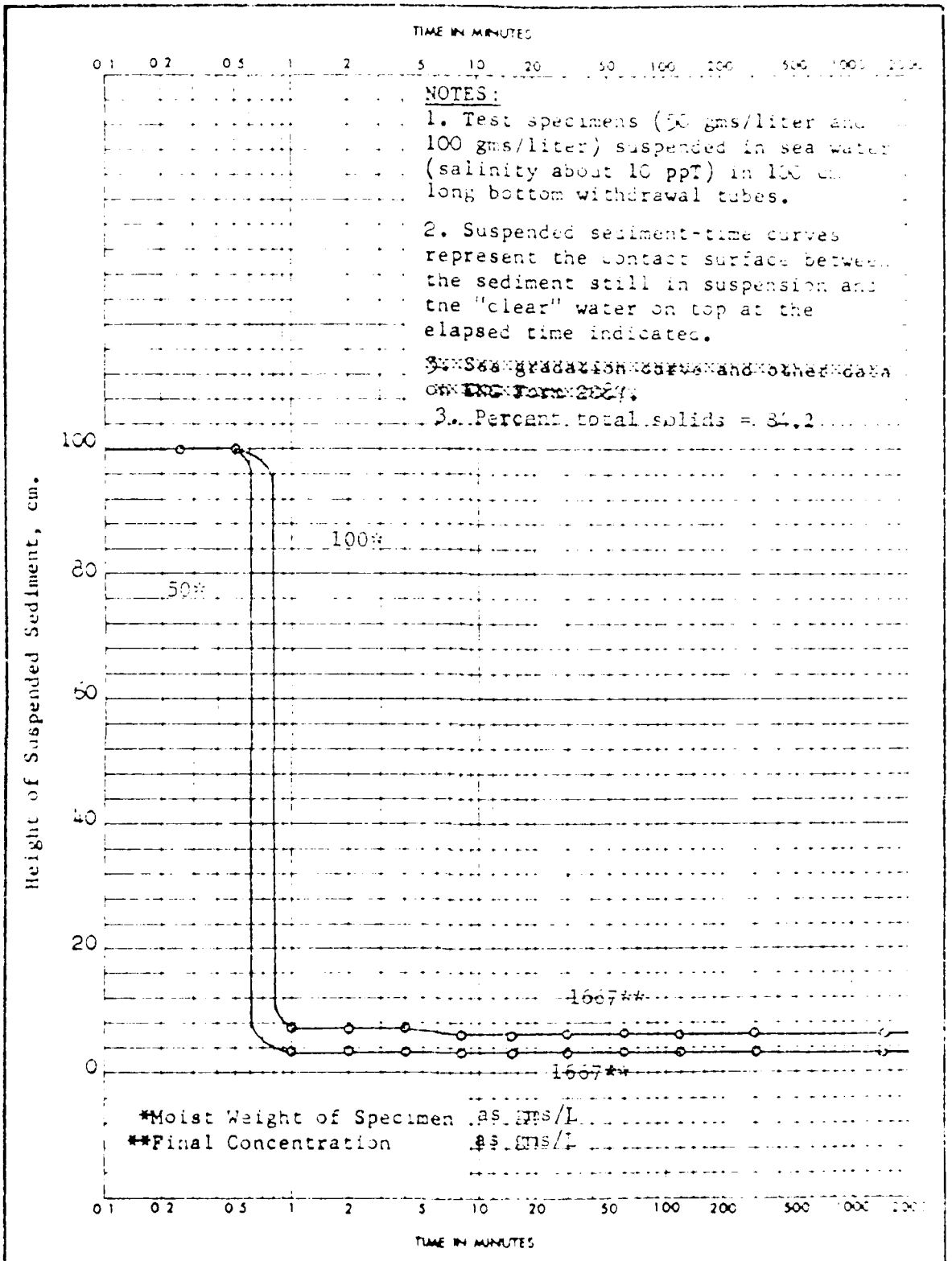
SUSPENDED SEDIMENT-TIME CURVES TRANSLUCENT

SAD Form 3023
26 Oct 72

...suspended sediment time curves for samples from stations DS28.

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SACEC-78-53
Work Order No. 15[illegible]



PROJECT CHARLESTON DISTRICT Charleston Harbor

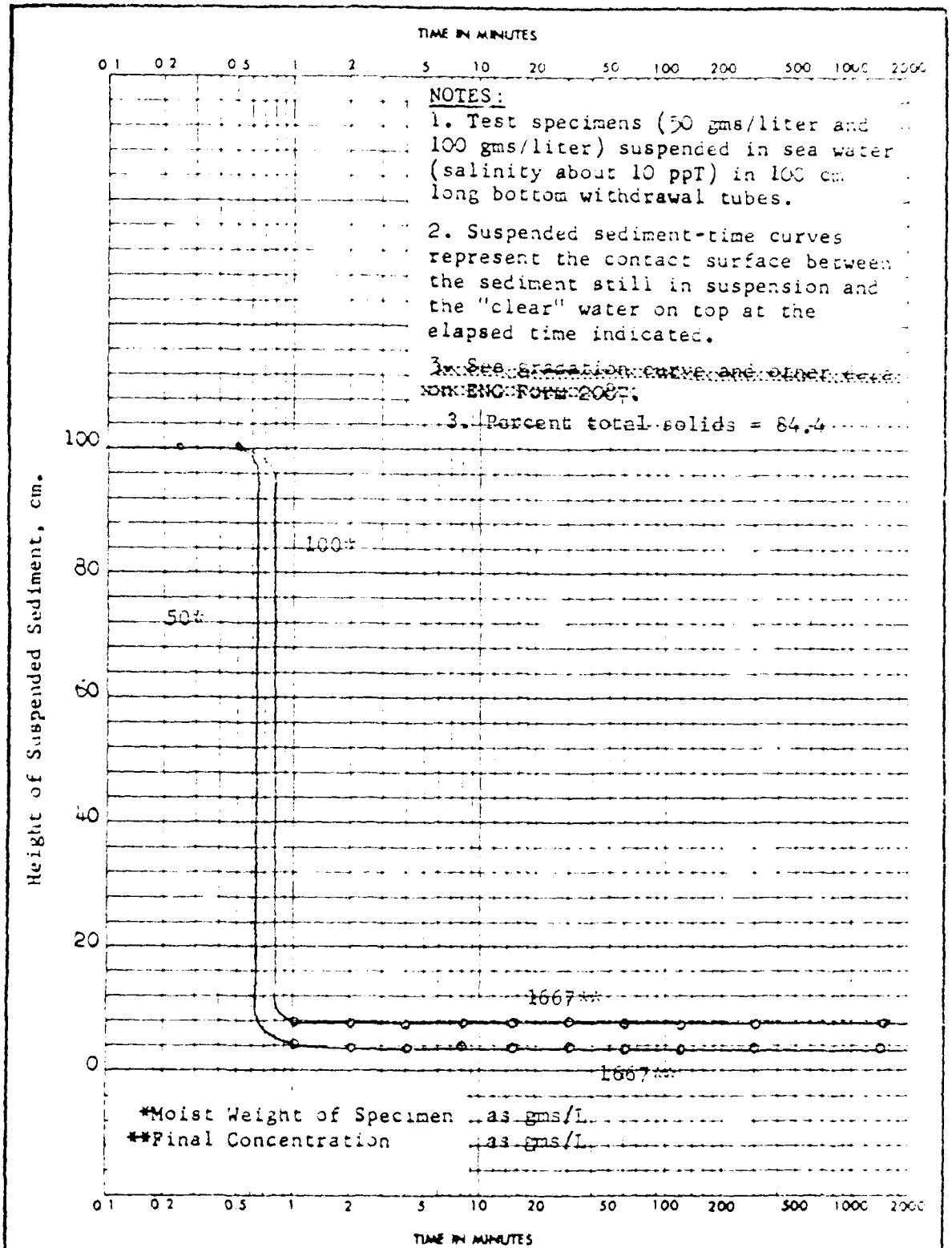
AREA Ocean Disposal Area Lab No. 38-750

BORING NO -- SAMPLE NO 78129 DEPTH ft - DATE April 1978

SUSPENDED SEDIMENT-TIME CURVES TRANSLUCENT

SAD Form 3023
26 Oct 72

Figure 15. Suspended sediment time curves for samples from station 1[illegible]



DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

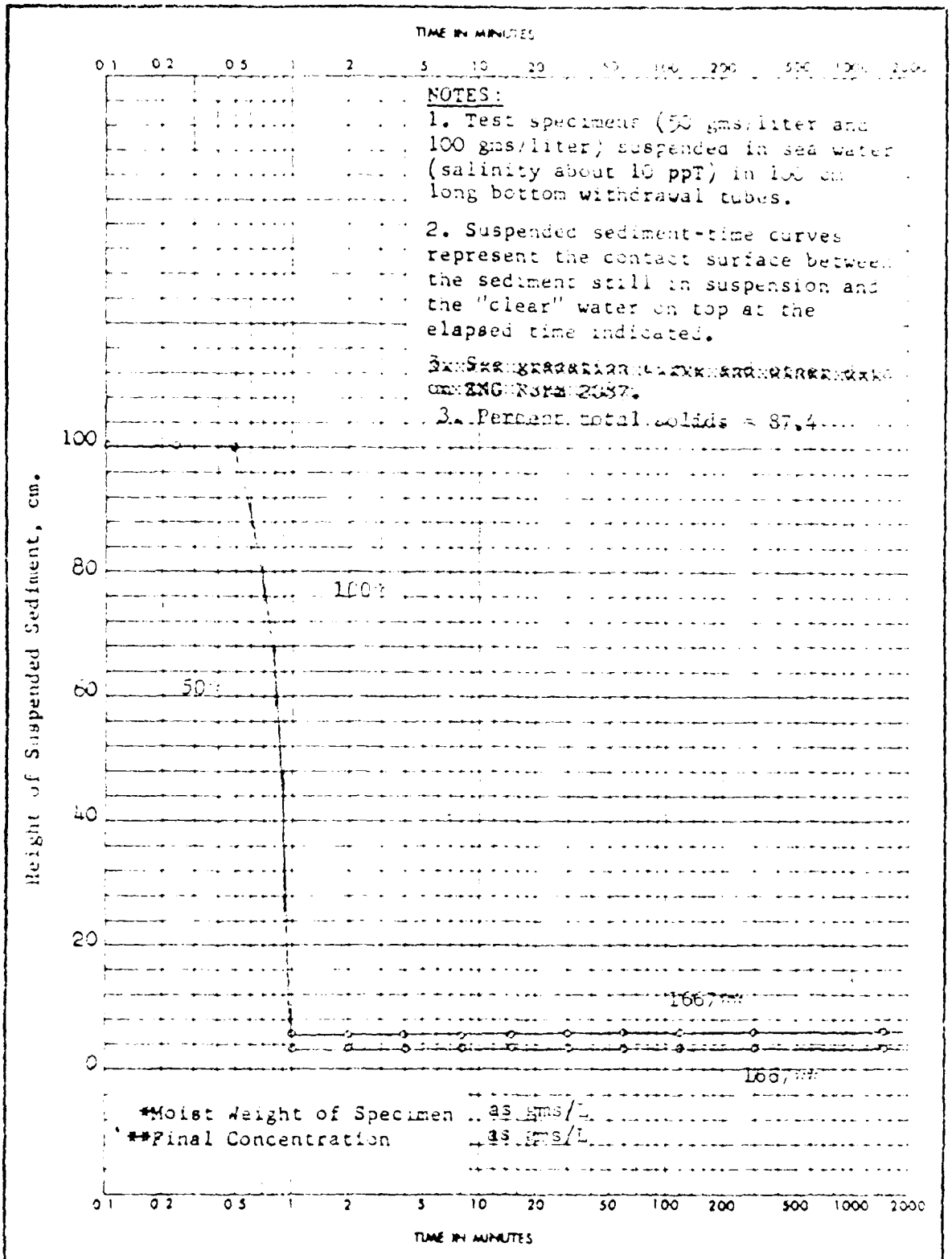
Reqn. No. SACEC-78-53
Work Order No. 1383

SAD Form 3023
26 Oct 72

Figure 24. Suspended sediment-time curves for samples from station DS30.

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SACEC-78-53
Work Order No. 1383



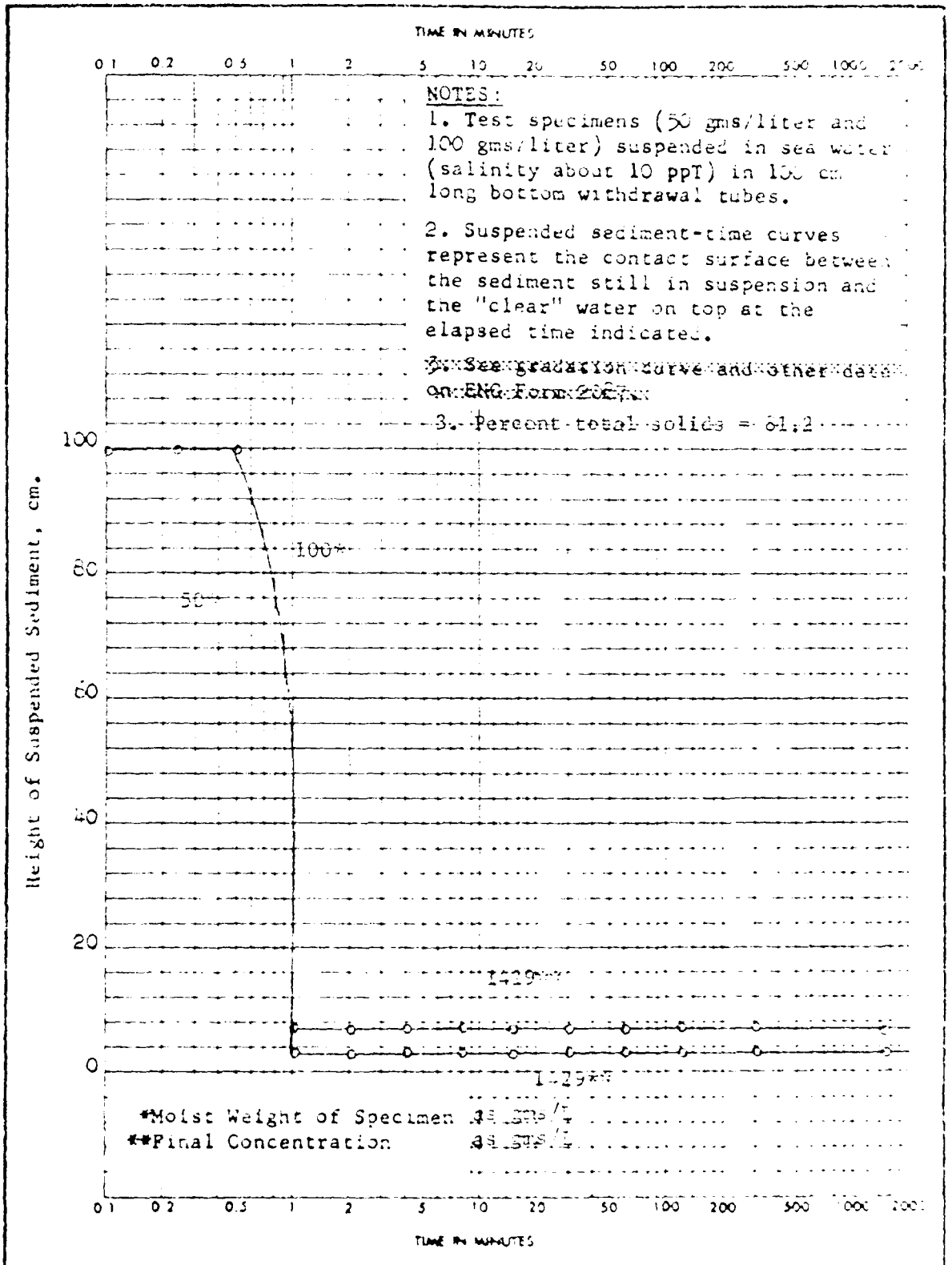
PROJECT CHARLESTON DISTRICT Charleston Harbor
AREA Ocean Disposal Area Lab No. 3S-309
BORING NO -- SAMPLE NO -3130 DEPTH ft -- DATE 4 April 1979
SUSPENDED SEDIMENT-TIME CURVES (TRANSLUCENT

SAD Form 3023
26 Oct 72

Figure 25. Suspended sediment-time curves for samples from Site 4B, USAE.

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Reqn. No. SAD(C-78-53
Work Order No. 1883



PROJECT CHARLESTON DISTRICT Charleston Harbor

AREA Ocean Disposal Area Lab No. 38-755

BORING NO -- SAMPLE NO [illegible] DEPTH ft. - DATE 4 April 1979

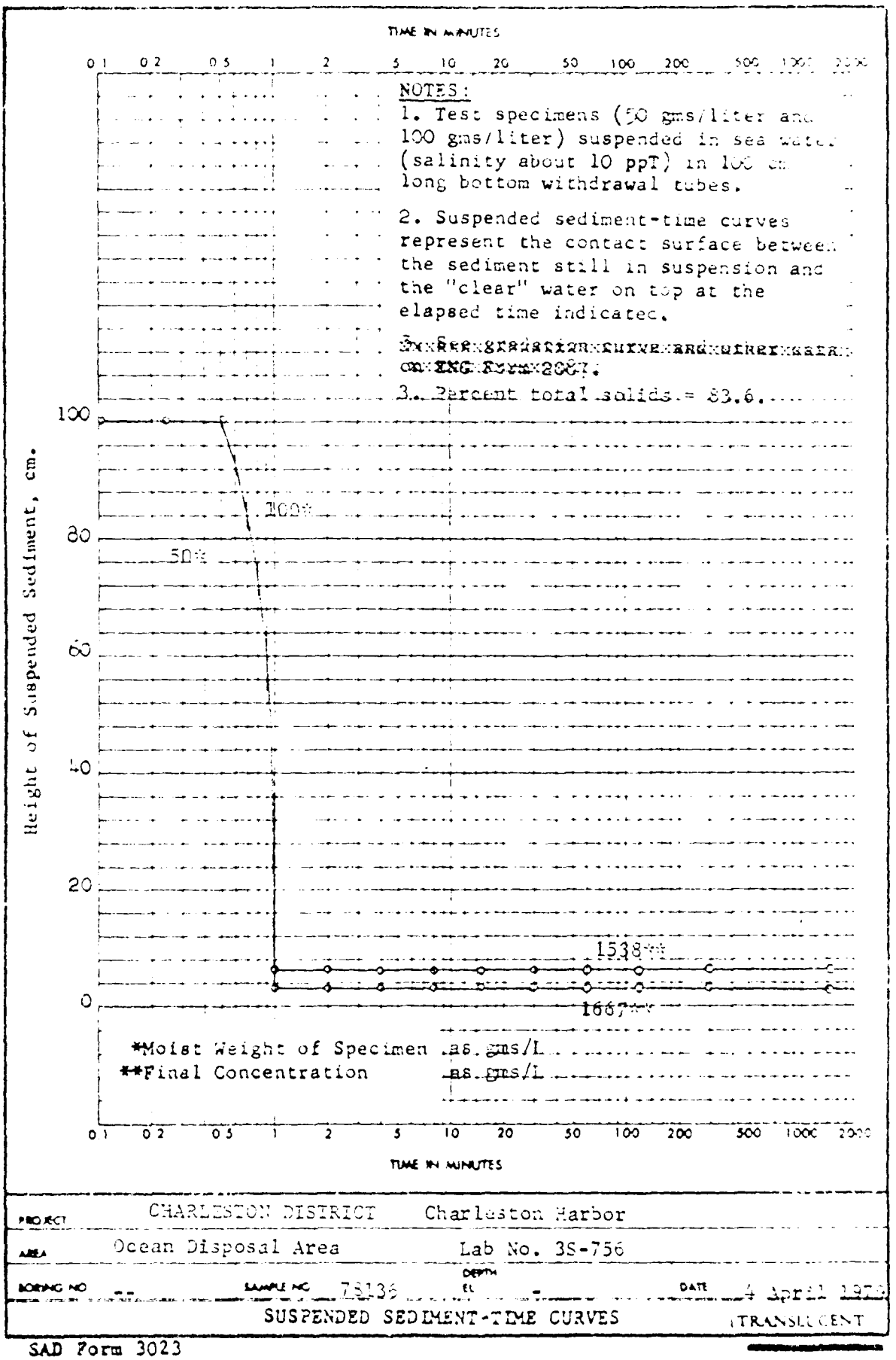
SUSPENDED SEDIMENT-TIME CURVES TRANSLUCENT

SAD Form 3023
26 Oct 72

Suspended sediment-time curves for samples from station DS33.

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060

Requ. No. SACRC-78-53
Work Order No. 1383

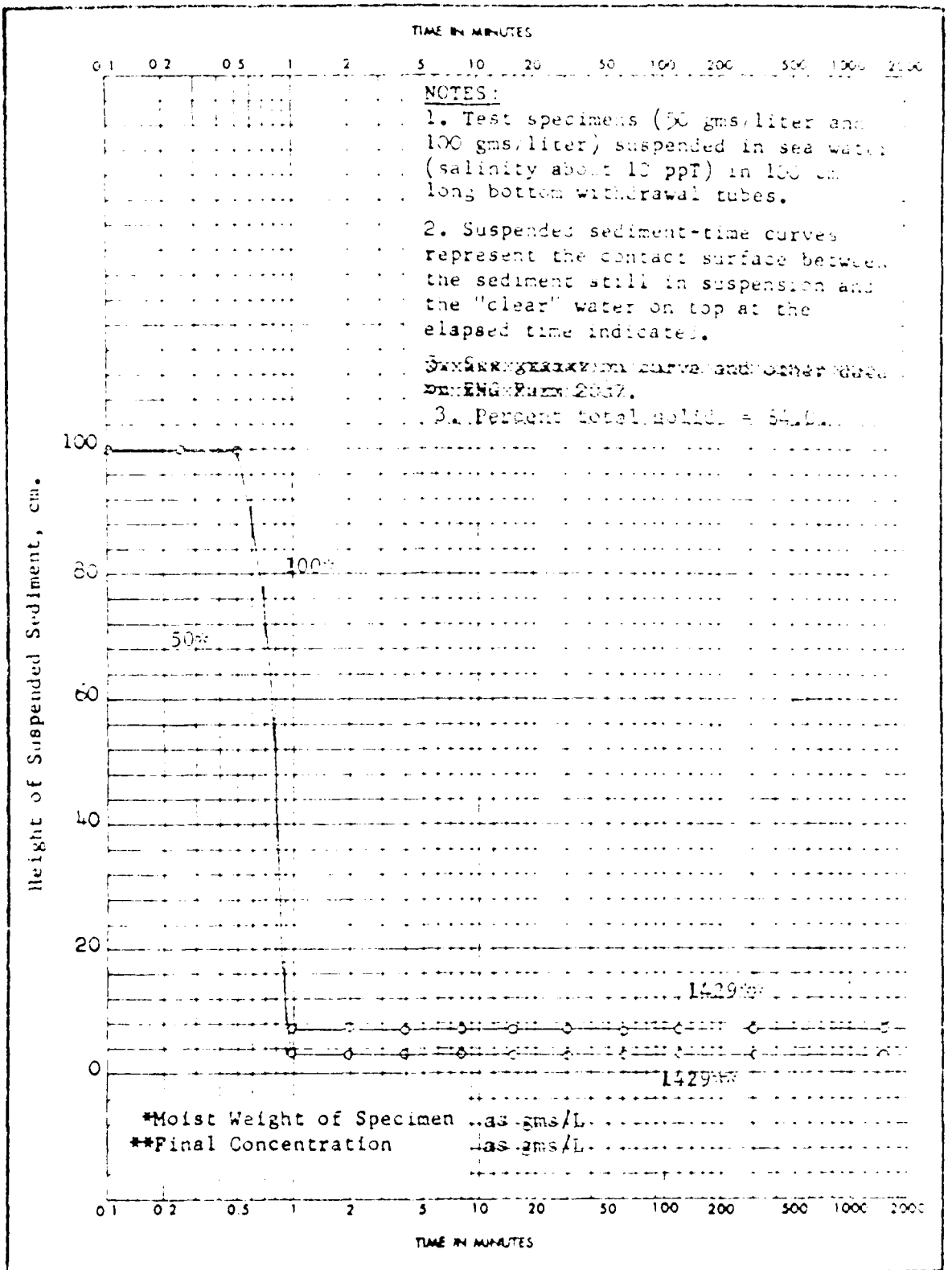


SAD Form 3023
26 Oct 72

Figure 27. Suspended sediment-time curves for samples from stati DS30.

Regn. No. SACRC-78-[illegible]
Work Order No. 1383

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY,
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GEORGIA 30060



PROJECT CHARLESTON DISTRICT Charleston Harbor
AREA Ocean Disposal Area Lab No. 3S-757
BORING NO. - SAMPLE NO. 73140 DEPTH EL - DATE 4 April 1978
SUSPENDED SEDIMENT-TIME CURVES (TRANSLUCENT)

SAD Form 3023
26 Oct 72

Figure 26. Suspended sediment-time curves for samples from station D5C0.

(2) sandy, clayey silt poor in calcium carbonate shell material extends from the seaward end of the jetties to approximately 3.5 nautical miles seaward of buoy "4" (stations EC14 to EC10, Fig. 2 and Table 8a).

(3) calcium carbonate shell-rich quartz sand extends seaward to the beginning of the maintained channel (stations EC9 to EC01, Fig. 2 and Table 8b).

The 46 individuals phi-normal quartz components extracted from the 21 station samples were classified into 6 unique textural groups. These phi-normal components were extracted from cumulative frequency data by the computer program ROSE (Clark, 1976). This classification is based on mean grain size and sorting or standard deviation and was accomplished through cluster analysis, inspection, and step-wise discriminant analysis. These individual phi-normal quartz components are each considered to represent a depositional response to various interacting parameters, i.e., wave-tidal currents and available sediment supply, effecting sedimentation at the sampled stations. The following three major groups containing 72% of the phi-normal quartz components were identified:

Group 1: 10 members, mean grain size of 2.41 ± .13 phi, sorting of 0.30 ± .14 phi units.

Group 2: 14 members, mean grain size of 2.78 ± .19 phi, sorting of 0.10 ± .06 phi units.

Group 3: 9 members, mean grain size of 3.09 ± .37 phi, sorting of 0.34 ± .19 phi units.

The membership of these groups is presented in Table 37.

Using a goodness of fit statistical test, the hypothesis of equal distribution over the three previously mentioned zones was rejected at the 99% confidence level only for Group 3 (see Table 38). Group 3 appears to be localized in Zone 2, the "channel", which is clay- and silt-rich. Inspection of the membership of groups characterized by coarser mean grain sizes

and [illegible] (Table 89) indicate that they [illegible] also not [illegible] within [illegible].

The sampled [illegible] stations are from that portion of the [illegible] channel cut into the 24 foot- to 30 foot-deep nearshore shelf seaward of the jetties. This man-made "canyon" is providing a basin suitable for silt and clay deposition. Furthermore, silt and clay deposition within this "canyon" is much more important than sand deposition, at least in the [illegible] grab samples (Table 89). The existence of this very fine sandy, clayey silt deposit raises questions concerning 1) sand transport both on the shoals flanking Charleston Harbor Entrance and in the nearshore region and 2) the depositional fate of silts and clays (potentially pollutant bearing) leaving Charleston Harbor.

B) Charleston Harbor Offshore Disposal Area:

The only direct sedimentologic evidence of Entrance Channel spoil disposal in this region was the presence of fresh calcarenite rock and fossil fragments from geologic formations exposed on the bottom between the jetties. These were found at 4 stations within and 4 stations without the Offshore Disposal Area (Fig. 2). The calcarenite rock fragments are from Bear Bluff equivalent beds (Upper Pliocene in age) as are the fossils, large scallops (Chlamys aborea). No recognizable Cooper Formation rock fragments (marl) were observed. This calcarenite rock was sampled at Entrance Channel station EC15 (Fig. 2).

The bottom sediments of the Offshore Disposal Area are calcium carbonate shell-rich quartz sands (Tables 89 and 90) exhibiting symmetric, wave-generated ripple marks (Table 91). Of the 15 stations observed by divers 13 had symmetric, wave-generated ripple marks with crests oriented NW-SE, 1 had asymmetric ripple marks indicating northward transport, and 1 had a flat bed (Table 91). These symmetrical ripple marks, although sand was not observed to be moving, were

probably a bedform response to recent swell and sea. Bottom sediments in the Offshore Disposal Area are not below wave base and are thus transported under local swell and sea conditions.

These bottom sediments typically contain two phi-normal quartz components, one coarser in grain-size and poorer in sorting than the other (Tables 89 and 90). Ripple mark crests and troughs could be differentiated texturally and compositionally only at stations DS34 and DS39 (Tables 90 and 91). At all the other stations crests and troughs are texturally and compositionally identical.

The 253 individual phi-normal quartz components extracted from bottom sediment samples collected at 40 stations were classified into 16 unique textural groups. These phi-normal components were extracted from cumulative frequency data using the computer program BOKE (Clark, 1976). This classification is based on mean grain size and sorting or standard deviation and was accomplished through cluster analysis, inspection, and step-wise discriminant analysis. The individual phi-normal quartz components are each considered to represent a depositional response to various interacting parameters, i.e., wave-tidal currents and available sediment supply, effecting sedimentation. The following six major groups [illegible] of the phi-normal quartz components were identified:

Group 1: 23 members, mean grain size of 1.01 ± .13 phi, Sorting of 0.55 ± .04 phi units.

Group 5: 41 members, mean grain size of 2.00 ± .08 phi, Sorting of 0.56 ± .09 phi units.

Group 6: 29 members, mean grain size of 2.35 ± .11 phi, Sorting of 0.51 ± .07 phi units.

Group 8: 42 members, mean grain size of 2.31 ± .06 phi, Sorting of 0.[illegible] ± .[illegible] phi units.

Group 9: 26 members, mean grain size of 2.50 ± .06 phi, Sorting of 0.34 ± .04 phi units.

Group 10: 26 members, mean grain size of 2.67 ± .05 phi, Sorting of 0.26 ± .05 phi units.

The membership of these groups is presented in Table 92.

Using a goodness-of-fit statistical test, the hypothesis of equal distribution within and without the disposal area was rejected at the 90% confidence level only for Group 10 (Table 93). Group 10 alone appears to be preferentially located within the Charleston Harbor Offshore Disposal Area. The hypothesis of equal distribution over the five shore-parallel transects was rejected at the 90% confidence level for Groups 1, 5, 6, 9, and 10 (Table 94). Group 8 alone failed to be rejected. The hypothesis of equal distribution over 4 shore-perpendicular transects was rejected at the 90% confidence level for Groups 1, 8, 9, and 10 (Table 95). Groups 5 and 6 failed to be rejected. These tests were made to analyze the geographic distribution of these groups over the study region.

Rejection of both the shore-parallel and shore-perpendicular hypotheses suggests a distribution of isolated points. This is indicated for Groups 1, 9, and 10. In addition, Group 10 is restricted to the Disposal Area proper.

Rejection of only the shore-parallel hypothesis suggests a distribution of shore-parallel bands and is indicated for Groups 5 and 6. Inspection of the actual distribution of Group 5 members over the 5 shore-parallel transects shows that they are concentrated in two non-adjacent bands (Table 94). This situation may not be the result of shoreward sand transport but could reflect local, shore-parallel sources. However, inspection of the distribution of Group 6 members over the 5 shore parallel transects shows a steady concentration

of members toward the nearshore and away from the offshore (Table 94). This may be indicative of shoreward transport of finer grained sands winnowed from sediments lying further offshore.

Rejection of only the shore-perpendicular hypothesis suggests a distribution of shore-perpendicular bands and is indicated for Group 8. However, inspection of the actual distribution of Group 8 members over the 4 shore-perpendicular transects (Table 94) shows that they are almost equally concentrated in two non-adjacent bands. This situation may not be the result of sand transport NE-SW across the near-shore shelf, but could result from shoreward transport from isolated point sources.

In summary, the only direct evidence of Entrance Channel spoil found in the study area was the presence of fresh calcarenite pebbles and fossils from geologic formations exposed on the bottom between the jetties. The sandy bottom throughout the study area is ripple marked, an indication that swell and sea move sediment over the entire region - no portion of the study area can be considered below "wave base." Analysis of phi-normal plots indicates a minimum of 6 unique major textural or grain size groups present in the study area, only one of which is restricted to the Disposal Area proper. Isolated point sources characterize the geographic distributions of three of these groups and are indirectly indicated for 2 more. The remaining group is distributed in shore-parallel bands with members being concentrated in the nearshore bands and deficient in the offshore.

CONCLUSIONS

The Charleston Harbor Ocean Disposal Area is located on the inner continental shelf midway along the coast of South Carolina. Water depths in the area vary from about 10-16 m, and bottom sediments are sandy. Investigations were conducted in and adjacent to the Ocean Disposal Area during the summer and autumn of 1978 to assess the benthic communities and sediment characteristics of the area in relation to disposal of dredged materials over the site.

Waters of high salinity and moderate dissolved oxygen content cover the study area. During August field sampling, salinities varied from 31.32-35.83°/oo, while oxygen concentrations ranged from 4.0-6.9 mg/l. Turbidities decreased progressively with increasing distance from shore, so that water clarity was markedly greater offshore.

Shifting sands provide an unsuitable substrate for most sessile species, and the study area was sparsely populated with epifaunal invertebrates except in areas where accumulations of large shells were present. The number of species in dredge collections varied widely from one station to another. These differences were related to the presence or absence of suitable substrate rather than any effects from disposal of dredged materials in the area. The amount of material collected by the dredge was small at each of the 40 stations sampled. Although sponges, octocorals, hydroids, bryozoans, and ascidians were occasionally taken in the dredge, no live bottom areas were found anywhere in the study area. No noteworthy differences in epifaunal composition were detected between the Ocean Disposal Area and adjacent sites outside that could be directly attributed to disposal practices.

Although the bottom of the study area appears to constitute a relatively uniform habitat, an unexpectedly large variety of infaunal invertebrates were found in grab samples. Thorough taxonomic workup of these collections resulted in the identification of 493 species. This study shows that benthic communities of the inner continental shelf in this region are faunistically richer and have higher species diversity than previously thought. Most of the constituent species are small, and polychaete worms dominated the fauna both in numbers of species (211) and overall abundance (37.5% of the fauna). The most abundant species was the lancelet Branchiostoma caribaeum, a seasonally abundant organism which accounted for nearly 20% of the total number of animals collected. Lancelets were found in much greater concentrations than have been recorded before from the southeastern continental shelf, reaching maximum densities of 2788 individuals m^{-2}. The detailed account of benthic community structure provided by this report provides a data base for appraising the effects of future dredged material disposal in the area.

Variation in species numbers, faunal density, species diversity, and species richness were noted from one station to another. However, differences between sites inside and outside the Ocean Disposal Area were not statistically significant. No effects of dredged material disposal were detectable on either epifaunal or infaunal communities. Such practices have probably had little lasting impact on the macrobenthos because of the similarity of dredged materials to the existing sediments of the disposal area. On the other hand, the impact of dredged materials of a different particle size, such as silts from Charleston Harbor, would probably be significant if these sediments were not rapidly diluted and dispersed from the area by water currents. If such material settled out to form a mound at the disposal area, the impact would be [illegible] as long as it remained unburied by the site.

The only direct evidence of Entrance Channel shell found in the study area was the presence of fresh calcarenite pebbles and fossils from geologic formations exposed on the bottom between the jetties. The sand bottom throughout the study area is ripple marked, an indication that swell and sea move sediment over the entire region - no portion of the study area can be considered to be below "wave base." There are a minimum of 6 unique textural or grain size groups present in the study area, only one of which is restricted to the Disposal Area proper. Isolated point sources characterize the geographic distributions of 3 of these groups and are indirectly indicated for 2 more. One group is distributed in shore-parallel bands with members being concentrated in the nearshore bands and deficient in the offshore.

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Table 1. Measurements made on samples collected during benthic sampling in the Charleston Harbor Ocean Dredged Material Disposal Site.

Station	Date	Station Depth	Depth	Temp. (C)	Salinity (‰)	D.O. (mg/l)	Turbidity (FTU)	Nitrate	Nutrients (µg/l) Nitrite	Silicate	Phosphate	Solids Total	Solids Suspended
DS01	8- -78	8.0	Surface	28.9	31.32	6.4	3.7			[illegible]	19.0		
			Bottom	28.0	35.46	5.5	8.7	1.8	1.0	30.[illegible]	48.0		
DS02	8- -78	8.0	Surface	28.7	33.03	6.0	1.8	2.4	1.1	66.[illegible]	8.0		
			Bottom	28.3	33.99	5.6	6.8	1.4	0.7	49.[illegible]	31.0		
DS03	8- -78	9.0	Surface	28.9	32.99	6.4	3.5	2.0	1.2	59.[illegible]	13.5		
			Bottom	28.2	33.90	5.5	5.7	2.7	0.5	91.8	37.0	111.0	[illegible]
DS04	8- -78	9.0	Surface	29.0	32.04	6.5	4.3	1.4	1.[illegible]	27.[illegible]	21.0	[illegible]	50.[illegible]
			Bottom	28.2	34.20	5.1	10.0	10.6	1.[illegible]	105.[illegible]	76.[illegible]	133.8	31.[illegible]
DS05	8- -78	8.0	Surface	28.3	31.57	6.5	8.6			125.6	[illegible]	106.[illegible]	[illegible]
			Bottom	29.2	33.94	5.1	6.9			111.[illegible]	46.[illegible]		
DS06	8- 8-78	9.0	Surface	28.6	31.54	6.6	7.5			139.2	66.0	26.0	13.[illegible]
			Bottom	28.[illegible]	34.63	5.7		3.4	1.[illegible]	46.2	21.0	108.0	41.6
DS07	8- 8-78	9.0	Surface	28.8	33.67	6.6	1.3	5.1	1.[illegible]	105.[illegible]	0.0		
			Bottom	28.2	34.63	5.7	0.7	1.8	1.[illegible]	70.[illegible]	8.0		
DS08	8- 8-78	10.2	Surface	28.8	33.65	6.8	0.7			70.[illegible]	0.0		
			Bottom	28.1	34.61	5.7	5.9	1.4	1.[illegible]	28.1	8.0		
DS09	8- 9-78	12.0	Surface	29.0	32.90	6.2	1.8			70.[illegible]	4.5		
			Bottom	28.0	34.71	5.9	2.0	2.1	0.4	56.[illegible]	9.5		
DS10	8- 9-78	11.0	Surface	29.3	31.70	6.8	1.8	2.0	0.4	150.[illegible]	0.0	88.[illegible]	5.6
			Bottom	28.0	34.58	5.7	6.0	1.7	0.5	28.1	0.0		
DS11	8- 9-78	12.6	Surface	29.3	[illegible]	6.6	1.6	2.8	0.5	133.[illegible]	0.0		
			Bottom	28.0	34.77	5.8	3.2	2.[illegible]	0.3	42.[illegible]	9.5	83.2	2.5
DS12	8- 9-78	13.5	Surface	29.5	32.20	6.9	1.4	4.0	0.6	105.6	6.5		
			Bottom	28.4	34.73	5.7	2.0	2.9	0.3	49.[illegible]	6.5	108.0	5.6
DS13	8- 9-78	11.5	Surface	29.2	34.20	6.4	0.7	7.7	0.7	57.9	8.0		
			Bottom	28.1	34.74	5.8	2.0	4.9	0.3	42.[illegible]	0.0		
DS14	8- 8-78	11.5	Surface	29.2	34.22	6.5	0.7	2.8	0.0	34.1	0.0	[illegible].0	16.8
			Bottom	28.2	34.68	6.7	1.1	2.9	0.3	35.1	5.5	77.4	17.8
DS15	8- 8-78	12.0	Surface	29.3	34.15	6.4	0.7	7.7	1.1	70.[illegible]	0.0	86.[illegible]	21.2
			Bottom	28.2	34.70	5.6	3.7	5.2	0.3	105.[illegible]	13.0	111.6	30.8
DS16	8- 8-78	12.0	Surface	29.2	34.22	6.5	1.0	4.1	0.1	28.1	0.0	1.0	
			Bottom	28.2	34.73	5.9	1.3	3.2	0.0	28.1	0.0	1.3	

Table 1. (cont.)

Station	Date	Station Depth	Depth	Temp. (°C)	Salinity (‰)	D.O. (mg/l)	Inorganic P. (PHP)	Nitrate	Nitrite	Silicate	Phosphate	Solids Total	Solids Settleable
DS17	8-9-78	13.6	Surface	30.0	32.66	6.6	1.2	3.7	20.3	0.0	1.2	82.5	36.8
			Bottom	28.3	35.27	6.6	2.3	3.4	84.3	8.0	2.3	174.5	28.8
DS18	8-9-78	11.2	Surface	29.2	33.63	6.5	1.0	2.7	0.1	35.1		91.6	32.0
			Bottom	28.3	35.85	6.0	1.1	3.2	0.0	[illegible]	0.0	114.7	[illegible]
DS19	8-10-78	12.3	Surface	28.9	33.92	6.8	0.6	3.8	0.0	63.2	13.0		
			Bottom	28.0	34.91	6.0	1.6	3.8	0.0	56.4	3.0		
DS20	8-10-78	12.8	Surface	29.1	33.00	6.7	0.2	2.5	0.0	63.2	19.5	74.8	12.0
			Bottom	28.2	35.05	6.1	3.0	2.1	0.0	98.1	19.5	109.2	[illegible]
DS21	8-10-78	12.8	Surface	29.0	33.33	6.5	1.1	2.8	0.0	56.2		28.8	14.8
			Bottom	28.0	35.98	6.0	1.5	2.4	0.0	42.2	0.0	46.4	[illegible]
DS22	8-10-78	12.9	Surface	29.2	32.61	6.6	1.0	2.8	0.0	84.3	0.0	86.8	36.5
			Bottom	28.2	35.01	6.2	2.3	2.0	0.1	28.1	0.0	89.2	19.2
DS23	8-10-78	14.0	Surface	30.1	32.61	6.9	0.7	2.5	0.3	35.1	11.5	69.2	[illegible]
			Bottom	28.5	35.01	6.3	1.9	2.9	0.3	98.4	3.0	86.0	16.4
DS24	8-10-78	15.2	Surface	29.6	33.60	6.5	1.2	2.9	0.3	49.2	6.5		
			Bottom	28.5	35.05	6.2	0.7	2.5	0.3	49.2	2.0		
DS25	8-11-78	14.1	Surface	28.0	33.58	6.4	1.2	1.8	0.3	35.1	0.0	77.2	38.4
			Bottom	27.8	35.15	6.0	1.4	1.1	0.3	21.1	0.0	108.4	22.0
DS26	8-11-78	14.1	Surface	28.8	33.80	6.5	0.2	1.4	0.0	21.1	0.0		
			Bottom	27.8	35.21	6.0	1.0	1.3	0.1	21.1	0.0		
DS27	8-11-78	12.5	Surface	29.0	33.73	6.5	1.0	1.8	0.0	28.1	8.0	63.2	1.6
			Bottom	28.0	35.17	6.1	1.1	1.8	0.0	21.1	0.0	63.6	[illegible]
DS28	8-11-78	11.6	Surface	29.0	33.74	6.5	1.0	1.0	0.1	21.1	0.0	-	
			Bottom	28.0	35.17	6.0	2.0	2.1	0.0	35.1	0.0		
DS29	8-11-78	14.6	Surface	29.2	33.72	6.6	1.0	2.3	0.1	49.2	13.0	64.2	[illegible]
			Bottom	28.0	35.25	6.0	4.0	3.4	0.4	63.2	35.5	86.8	[illegible]
DS30	8-14-78	14.8	Surface	29.3	34.13	6.3	0.9	2.8	0.0	56.2	0.0	73.2	[illegible]
			Bottom	27.4	35.76	5.6	1.0	5.1	0.1	49.2	0.0	93.2	[illegible]
DS31	8-14-78	13.2	Surface	29.4	33.98	6.5	1.0	2.4	0.0	49.2	0.0	76.0	[illegible]
			Bottom	27.4	35.77	5.3	1.0	4.2	0.0	21.1	0.0	97.2	[illegible]
DS32	8-10-78	14.8	Surface	29.6	33.72	6.5	0.6	3.5	0.3	42.2	13.0	84.0	10.4
			Bottom	28.2	35.22	6.4	1.0	2.1	0.3	28.1	19.5	94.4	[illegible]
DS33	8-14-78	14.5	Surface	28.6	33.70	5.5	0.9	0.4	0.3	14.1	0.0	-	
			Bottom	26.5	35.79	5.3	0.5	2.4	0.0	28.1	0.1		

Table 1. (cont.)

Station	Date	Station Depth	Depth	Temp. (C)	Salinity (‰)	D.O. (mg/l)	Turbidity (FTU)	Nutrients (µg/l) Nitrate	Nitrite	Silicate	Phosphate	Solids Total	Settleable
DS34	8-14-78	15.0	Surface	28.7	34.56	6.4	0.8	3.2	0.0	28.1	0.0		
			Bottom	26.5	35.80	5.5	0.4	4.6	0.0	21.1	0.0		
DS35	8-14-78	14.1	Surface	28.8	34.56	6.4	1.0	2.8	0.0	28.1	0.0	63.2	11.6
			Bottom	26.8	35.80	5.4	0.5	6.3	0.0	42.2	0.0	70.4	16.4
DS36	8-14-78	14.2	Surface	28.8	34.56	6.3	0.6	3.2	0.0	28.1	0.0	71.6	20.4
			Bottom	26.7	35.82	5.5	0.4	6.0	0.0	28.1	0.0	88.4	36.0
DS37	8-15-78	15.0	Surface	29.0	34.64	6.4	0.5	3.2	0.0	28.1	0.0	76.4	9.6
			Bottom	26.9	35.81	5.5	0.7	9.0	0.1	105.4	0.0	94.4	15.6
DS38	8-14-78	17.1	Surface	29.0	34.72	6.4	0.6	3.2	0.0	31.1	0.0	77.6	16.4
			Bottom	27.0	35.81	5.3	0.6	4.3	0.6	28.1	0.0		
DS39	8-14-78	15.5	Surface	29.4	34.74	6.2	0.7	2.7	0.1	14.1	0.0	84.6	44.4
			Bottom	27.0	35.88	5.6	0.5	2.8	0.5	14.1	0.0	98.0	56.4
DS40	8-15-78	15.3	Surface	30.0	34.80	6.6	0.8	3.4	0.1	56.2	9.0		
			Bottom	26.9	35.87	5.9	0.6	4.2	0.4	28.1	0.0		

Table 2. List of epifaunal species collected in oyster dredge samples, and their frequency of occurrence at 40 stations in the study area.

Species	Occurrence at Number of Stations
Phylum Porifera	
Cliona sp.	13
Leucosolenia canariensis	5
Porifera (undet.)	3
Spheciospongia vesparia	1
Orange sponge (undet.)	1
Phylum Cnidaria	
Clytia cylindrica	25
Astrangia danae	17
Turritopsis nutricula	16
Schizotricha tenella	15
Eudendrium sp.	14
Dynamena cornicina	13
Telesto sanguinea	12
Ectopleura dumortieri	11
Halecium dysymmetrum	8
Telesto fruticulosa	8
Leptogorgia setacea	7
Zanclea costata	5
Actiniaria (undet.)	4
Halecium sp.	3
Lovenella grandis	3
Titanideum frauenfeldii	3
Chrysaora quinquecirrha (polyp)	2
Leptogorgia virgulata	2
Lovenella gracilis	2
Monostaechas quadridens	2
Plumularia floridana	2
Proboscidactyla ornata	2
Bougainvillia sp.	1
Campanulina sp.	1
Clytia fragilis	1
Clytia kincaidi	1
Clytia paulensis	1
Cuspidella humilis	1
Epizoanthus americanus	1
Hydractinia echinata	1
Lophogorgia hebes	1
Pandeidae (undet.)	1
Sertularella conica	1
Phylum Platyhelminthes	
Tubellaria (undet.)	5
Phylum Rhynchocoela	
Nemertean (undet.)	1
Phylum Entoprocta	

Table 2. (continued)

Species	Occurrence at Number of Stations
Barentsia sp.	1
Entoproct (undet.)	1
Phylum Bryozoa	
Parasmittina nitida	24
Membranipora tenuis	23
Microporella ciliata	21
Schizoporella cornuta	17
Aetea anguina	15
Cribrilaria radiata	14
Hippopleurifera mucronata	13
Hippoporina verrilli	12
Phylactella aviculifera	12
Trypsostega venusta	9
Cleidochasma porcellanum	8
Cyclostomata A (undet.)	8
Schizoporella errata	8
Bowerbankia gracilis	7
Crisia sp.	7
Floridina parvicella	7
Hippoporella uvulifera	7
Copidozoum tenuirostre	6
Lichenopora sp.	6
Celleporidae (undet.)	4
Reptadeonella violacea	3
Sundanella sibogae	3
Aeverrillia setigera	2
Amathia distans	2
Caulibugula pearsei	2
Cribrilina floridana	2
Cryptosula pallasiana	2
Hippaliosina rostrigera	2
Hippoporina contracta	2
Alcyonidium hauffi	1
Amathia alternata	1
Amathia sp.	1
Anasca A (undet.)	1
Celleporina hassalli	1
Ctenostomata (undet.)	1
Discoporella umbellata	1
Electra monostachys	1
Membranipora arborescens	1
Nolella stipata	1
Phylum Sipuncula	
Sipunculid (undet.)	14
Phylum Echiura	
Echiurid (undet.)	1
Phylum Annelida	
Hydroides dianthus	27
Sabellaria vulgaris	22
Lepidonotus sublevis	13

Table 2. (continued)

Species	Ocurrence at Number of Stations
Hypsicomus phaeotaenia	11
Pomatoceros caeruleus	10
Polychaeta A (undet.)	2
Polydora sp.	1
Sabellidae (undet.)	1
Phylum Mollusca	
Chama macerophylla	21
Crepidula fornicata	14
Anadara transversa	13
Ostrea equestris	13
Anomia simplex	10
Chaetopleura apiculata	8
Crepidula plana	8
Mitrella lunata	8
Octopus vulgaris	4
Anachis translirata	3
Musculus lateralis	3
Oliva sayana	3
Polinices duplicatus	3
Eupleura caudata	2
Modiolus modiolus squamosus	2
Acanthodoris pilosa	1
Argopecten gibbus	1
Dinocardium robustum	1
Didora cayenensis	1
Diplothyra smithi	1
Fasciolaria lilium hunteria	1
Gastropoda (undet.)	1
Lithophaga bisulcata	1
Muricidae (undet.)	1
Prunum apicinum	1
Sinum perspectivum	1
Turbo castanea	1
Urosalpinx cinerea	1
Phylum Arthropoda	
Balanus venustus	29
Balanus calidus	12
Ovalipes stephensoni	11
Kochlorine floridana	8
Xanthidae (undet.)	7
Pilumnus sp.	5
Portunus gibbesii	5
Caprellidae (undet.)	3
Pagurus pollicaris	3
Podochela sidneyi	3
Libinia dubia	2
Ovalipes ocellatus	2
Portunus spinimanus	2
Squilla empusa	2
Balanus galeatus	1

Table 2. (continued)

Species	Ocurrence at Number of Stations
Balanus improvisus	1
Callinectes sapidus	1
Chelonibia patula	1
Hepatus pudibundus	1
Hypoconcha sabulosa	1
Metoporhaphis calcarata	1
Micropanope xanthiformis	1
Paguridae (undet.)	1
Pilumnus sayi	1
Synalpheus townsendi	1
Tanystylum orbiculare	1
Trachypenaeus constrictus	1
Phylum Echinodermata	
Arbacia punctulata	14
Astropecten duplicatus	11
Ophiothrix angulata	11
Asterias forbesi	9
Mellita quinquesperforata	8
Luidia clathrata	3
Clypeaster rosaceus	2
Lytechinus variegatus	2
Astropecten articulatus	1
Clypeaster subdepressus	1
Luidia bernasconiae	1
Ophioderma appressum	1
Ophiolepis elegans	1
Phylum Chordata	
Didemnum candidum	12
Ascidiacea A (undet.)	8
Styela plicata	7
Ascidiacea B (undet.)	6
Amaroucium sp.	4
Amaroucium constellatum	2
Ascidiacea C (undet.)	2
Ascidiacea (undet.)	1
Ascidiacea D (undet.)	1
Clavelina picta	1
Molgulidae (undet.)	1
Styela sp.	1

Table 3. Occurrence of epifaunal invertebrates in dredge collections from station DS01.

Phylum Arthropoda
Ovalipes ocellatus
Phylum Echinodermata
Mellita quinquesperforata

Table 4. Occurrence of epifaunal invertebrates in dredge collections from station DS02.

Phylum Arthropoda
Portunus gibbesii
Phylum Echinodermata
Mellita quinquesperforata
Phylum Chordata
Amaroucium constellatum

Table 5. Occurrence of epifaunal invertebrates in dredge collections from station DS03.

Phylum Cnidaria
Clytia cylindrica
Phylum Polychaeta
Sabellaria vulgaris
Phylum Mollusca
Crepidula fornicata
Crepidula plana
Phylum Arthropoda
Balanus venustus
Pagurus pollicaris
Libinia dubia
Squilla empusa
Phylum Echinodermata
Luidia clathrata
Mellita quinquesperforata

Table 1. Occurrence of epifaunal invertebrates in dredge collections from station DS-4.

Phylum Cnidaria
Pandeidae (undet.)
Proboscicactyla ornata
Eudendrium sp.
Clytia fragilis
Clytia kincaidi
Clytia paulensis
Dynamena cornicina
Schizotricha tenella
Astrangia danae
Phylum Entoprocta
Barentsia sp.
Phylum Bryozoa
Membranipora tenuis
Phylum Annelida
Sabellidae (undet.)
Lepidonotus sublevis
Sabellaria vulgaris
Hydroides dianthus
Phylum Mollusca
Polinices duplicatus
Modiolus modiolus squamosus
Phylum Arthropoda
Callinectes sapidus
Libinia dubia
Phylum Echinodermata
Asterias forbesi
Mellita quinquesperforata

Table 7. Occurrence of epifaunal invertebrates in dredge collections from station DS05.

Phylum Porifera
Cliona sp.
Phylum Cnidaria
Turritopsis nutricula
Hydractinia echinata
Eudendrium sp.
Halecium dysymmetrum
Clytia cylindrica
Campanulina sp.
Dynamena cornicina
Chrysaora quinquecirrha (polyp)
Astrangia danae
Phylum Bryozoa
Membranipora arborescens
Membranipora tenuis
Microporella ciliata
Schizoporella cornuta
Phylum Annelida
Hydroides dianthus
Sabellaria vulgaris
Phylum Mollusca
Crepidula plana
Phylum Arthropoda
Balanus venustus
Caprellidae (undet.)
Pagurus pollicaris
Ovalipes ocellatus
Phylum Echinodermata
Asterias forbesi
Arbacia punctulata
Mellita quinquesperforata

Table 8. Occurrence of epifaunal invertebrates in dredge collections from station DS06.

Phylum Porifera
- *Cliona* sp.

Phylum Cnidaria
- *Clytia cylindrica*
- *Lovenella gracilis*
- *Telesto fruticulosa*
- *Astrangia danae*

Phylum Bryozoa
- *Electra monostachys*
- *Hippoporina verrilli*
- *Membranipora tenuis*
- *Microporella ciliata*
- *Parasmittina nitida*
- *Schizoporella cornuta*
- *Schizoporella errata*

Phylum Annelida
- *Lepidonotus sublevis*
- *Hydroides dianthus*
- *Sabellaria vulgaris*

Phylum Mollusca
- *Crepidula fornicata*
- *Anadara transversa*
- *Anomia simplex*
- *Ostrea equestris*
- *Chama macerophylla*

Phylum Arthropoda
- *Balanus venustus*

Phylum Chordata
- *Didemnum candidum*
- Ascidiacea B (undet.)

Table 9. Occurrence of epifaunal invertebrates in dredge collections from station DS07.

Phylum Porifera
- *Cliona* sp.

Phylum Cnidaria
- *Turritopsis nutricula*
- *Bougainvillia* sp.
- *Eudendrium* sp.
- *Clytia cylindrica*
- *Telesto fruticulosa*
- *Telesto sanguinea*
- *Leptogorgia virgulata*
- *Astrangia danae*

Phylum Platyhelminthes
- Turbellaria (undet.)

Phylum Bryozoa
- *Alcyonidium hauffi*
- *Bowerbankia gracilis*
- *Cryptosula pallasiana*
- *Hippoporina verrilli*
- *Membranipora tenuis*
- *Microporella ciliata*
- *Parasmittina nitida*
- *Schizoporella cornuta*
- *Schizoporella errata*

Phylum Sipuncula
- Sipunculid (undet.)

Phylum Annelida
- *Lepidonotus sublevis*
- *Sabellaria vulgaris*
- *Hypsicomus phaeotaenia*
- *Hydroides dianthus*

Phylum Mollusca
- *Crepidula fornicata*
- *Crepidula plana*
- *Anadara transversa*
- *Musculus lateralis*
- *Anomia simplex*
- *Ostrea equestris*
- *Chama macerophylla*
- *Diplothyra smithii*
- *Octopus vulgaris*

Phylum Arthropoda
- *Kochlorine floridana*
- *Balanus calidus*
- *Balanus venustus*
- *Squilla empusa*
- *Pagurus pollicaris*

Table 9. (continued)

	Xanthidae (undet.)
Phylum Echinodermata	
	Astropecten duplicatus
	Asterias forbesi
	Ophiothrix angulata
	Arbacia punctulata
Phylum Chordata	
	Didemnum candidum
	Ascidiacea A (undet.)

Table 10. Occurrence of epifaunal invertebrates in dredge collection from station DS08.

Phylum Porifera
Porifera (undet.)
Phylum Cnidaria
Eudendrium sp.
Telesto fruticulosa
Titanideum frauenfeldii
Phylum Bryozoa
Celleporidae (undet.)
Crisia sp.
Hippoporina verrilli
Membranipora tenuis
Schizoporella cornuta
Phylum Mollusca
Crepidula fornicata
Crepidula plana
Urosalpinx cinerea
Mitrella lunata
Anomia simplex
Ostrea equestris
Phylum Arthropoda
Tanystylum orbiculare
Balanus venustus
Ovalipes stephensoni
Portunus spinimanus
Xanthidae (undet.)
Pilumnus sp.
Metoporhaphis calcarata
Phylum Echinodermata
Luidia bernasconiae
Ophiothrix angulata
Mellita quinquesperforata
Phylum Chordata
Amaroucium sp.
Clavelina picta
Styela plicata
Ascidiacea (undet.)

Table 11. Occurrence of epifaunal invertebrates in dredge collection from station DS09.

Phylum Cnidaria
Chrysaora quinquecirrha (polyp)
Phylum Bryozoa
Membranipora tenuis
Phylum Annelida
Hydroides dianthus
Phylum Mollusca
Oliva sayana
Phylum Arthropoda
Balanus improvisus
Ovalipes stephensoni

Table 12. Occurrence of epifaunal invertebrates in dredge collections from station DS10.

Nothing recovered

Table 13. Occurrence of epifaunal invertebrates in dredge collections from station DS11.

Phylum Arthropoda
Trachypenaeus constrictus
Phylum Echinodermata
Astropecten duplicatus

Table 14. Occurrence of epifaunal invertebrates in dredge collections from station DS12.

Phylum Porifera
Spheciospongia vesparia
Phylum Cnidaria
Eudendrium sp.
Proboscidactyla ornata
Clytia cylindrica
Dynamena cornicina
Telesto sanguinea
Titanideum frauenfeldii
Lophogorgia hebes
Leptogorgia setacea
Actiniaria (undet.)
Phylum Bryozoa
Aeverrillia setigera
Bowerbankia gracilis
Celleporidae (undet.)
Crisia sp.
Ctenostomata (undet.)
Schizoporella cornuta
Phylum Mollusca
Anachis translirata
Musculus lateralis
Phylum Arthropoda
Balanus calidus
Balanus galeatus
Xanthidae (undet.)
Pilumnus sp.
Podochela sidneyi
Phylum Echinodermata
Astropecten duplicatus
Phylum Chordata
Amaroucium sp.
Didemnum candidum
Styela plicata
Molgulidae (undet.)
Ascidiacea C (undet.)
Ascidiacea D (undet.)

Table 15. Occurrence of epifaunal invertebrates in dredge collections from station DS13.

Phylum Porifera
- *Cliona* sp.

Phylum Cnidaria
- *Turritopsis nutricula*
- *Eudendrium* sp.
- *Clytia cylindrica*
- *Dynamena cornicina*
- *Schizotricha tenella*
- *Plumularia floridana*
- *Telesto fruticulosa*
- *Leptogorgia setacea*
- *Astrangia danae*

Phylum Platyhelminthes
- Tubellaria (undet.)

Phylum Bryozoa
- *Aetea anguina*
- *Bowerbankia gracilis*
- Celleporidae (undet.)
- *Copidozoum tenuirostre*
- *Crisia* sp.
- *Hippoporina contracta*
- *Hippoporina verrilli*
- *Membranipora tenuis*
- *Parasmittina nitida*
- *Schizoporella cornuta*
- *Sundanella sibogae*

Phylum Annelida
- *Lepidonotus sublevis*
- *Sabellaria vulgaris*
- *Hypsicomus phaeotaenia*
- *Hydroides dianthus*

Phylum Mollusca
- *Crepidula fornicata*
- *Mitrella lunata*
- *Prunum apicinum*
- *Anadara transversa*
- *Musculus lateralis*
- *Anomia simplex*
- *Ostrea equestris*
- *Chama macerophylla*
- *Chaetopleura apiculata*

Phylum Arthropoda
- *Kochlorine floridana*
- *Balanus venustus*
- Xanthidae (undet.)
- *Pilumnus* sp.

Table 15. (continued)

Phylum Echinodermata
- *Astropecten duplicatus*
- *Asterias forbesi*
- *Ophiothrix angulata*
- *Arbacia punctulata*

Phylum Chordata
- *Didemnum candidum*
- *Styela plicata*
- Ascidiacea A (undet.)
- Ascidiacea B (undet.)

Table 16. Occurrence of epifaunal invertebrates in dredge collections from station DS14.

Phylum Cnidaria
Clytia cylindrica
Phylum Bryozoa
Membranipora tenuis
Parasmittina nitida
Phylum Annelida
Sabellaria vulgaris
Hydroides dianthus
Phylum Mollusca
Ostrea equestris
Phylum Arthropoda
Balanus venustus
Phylum Echinodermata
Luidia clathrata

Table 17. Occurrence of epifaunal invertebrates in dredge collections from station DS15.

Phylum Cnidaria
Eudendrium sp.
Clytia cylindrica
Telesto fruticulosa
Telesto sanguinea
Astrangia danae
Phylum Bryozoa
Aetea anguina
Bowerbankia gracilis
Celleporina hassalli
Crisia sp.
Hippoporina verrilli
Microporella ciliata
Schizoporella cornuta
Phylum Annelida
Lepidonotus sublevis
Hydroides dianthus
Sabellaria vulgaris
Phylum Mollusca
Polinices duplicatus
Modiolus modiolus squamosus
Anadara transversa
Anomia simplex
Dinocardium robustum
Phylum Arthropoda
Balanus venustus
Ovalipes stephensoni
Phylum Echinodermata
Astropecten articulatus
Mellita quinquesperforata
Phylum Chordata
Ascidiacea A (undet.)

Table 18. Occurrence of epifaunal invertebrates in dredge collections from station DS16.

Phylum Cnidaria
Turritopsis nutricula
Clytia cylindrica
Dynamena cornicina
Schizotricha tenella
Astrangia danae
Phylum Rhynchocoela
Nemertean (undet.)
Phylum Bryozoa
Aetea anguina
Amathia alternata
Copidozoum tenuirostre
Hippoporina verrilli
Membranipora tenuis
Microporella ciliata
Parasmittina nitida
Schizoporella cornuta
Phylum Annelida
Lepidonotus sublevis
Sabellaria vulgaris
Hydroides dianthus
Phylum Mollusca
Crepidula fornicata
Anadara transversa
Musculus lateralis
Anomia simplex
Chama macerophylla
Phylum Arthropoda
Balanus calidus
Balanus venustus
Phylum Echinodermata
Ophiothrix angulata
Arbacia punctulata
Phylum Chordata
Didemnum candidum
Ascidiacea A (undet.)
Ascidiacea B (undet.)

Table 19. Occurrence of epifaunal invertebrates in dredge collections from station DS17.

Phylum Porifera
- Porifera (undet.)

Phylum Cnidaria
- Turritopsis nutricula
- Eudendrium sp.
- Clytia cylindrica
- Dynamena cornicina
- Schizotricha tenella
- Telesto fruticulosa
- Telesto sanguinea
- Titanideum frauenfeldii
- Actiniaria (undet.)
- Astrangia danae

Phylum Bryozoa
- Aetea anguina
- Copidozoum tenuirostre
- Cribrilaria radiata
- Hippopleurifera mucronata
- Hippoporella uvulifera
- Hippoporina verrilli
- Membranipora tenuis
- Microporella ciliata
- Parasmittina nitida
- Phylactella aviculifera
- Reptadeonella violacea
- Schizoporella cornuta
- Schizoporella errata
- Trypsostega venusta

Phylum Annelida
- Lepidonotus sublevis
- Sabellaria vulgaris
- Hydroides dianthus

Phylum Mollusca
- Crepidula fornicata
- Fasciolaria lilium hunteria
- Chaetopleura apiculata
- Ostrea equestris
- Chama macerophylla

Phylum Arthropoda
- Balanus calidus
- Balanus venustus
- Caprellidae (undet.)
- Synalpheus townsendi
- Paguridae (undet.)
- Pilumnus savi
- Xanthidae (undet.)

Table 19. (cont.)

Phylum Echinodermata
- *Ophiothrix angulata*
- *Arbacia punctulata*
- *Clypeaster rosaceus*

Phylum Chordata
- *Amaroucium constellatum*
- *Didemnum candidum*
- Ascidiacea A (undet.)

Table [illegible] ... invertebrates in dredge collections from station [illegible]

Phylum Cnidaria
- Ectopleura dumortieri
- Clytia cylindrica
- Schizotricha tenella
- Telesto sanguinea

Phylum Bryozoa
- Cryptosula pallasiana
- Hippoporina verrilli
- Membranipora tenuis
- Microporella ciliata
- Schizoporella errata

Phylum Annelida
- Hydroides dianthus
- Sabellaria vulgaris

Phylum Mollusca
- Crepidula fornicata
- Crepidula plana
- Mitrella lunata
- Anadara transversa
- Anomia simplex
- Ostrea equestris

Phylum Arthropoda
- Balanus venustus
- Hepatus pudibundus
- Ovalipes stephensoni

Phylum Echinodermata
- Astropecten duplicatus

Phylum Chordata
- Styela sp.

Table 21. Occurrence of epifaunal invertebrates in dredge collections from station DS19.

Phylum Cnidaria
Eudendrium sp.
Halecium dysymmetrum
Clytia cylindrica
Dynamena quadridentata
Schizotricha tenella
Phylum Bryozoa
Microporella ciliata
Phylum Annelida
Hydroides dianthus
Phylum Mollusca
Sinum perspectivum
Phylum Arthropoda
Balanus venustus

Table 22. Occurrence of epifaunal invertebrates in dredge collections from station DS20.

Phylum Cnidaria
Ectopleura dumortieri
Astrangia danae
Phylum Bryozoa
Membranipora tenuis
Parasmittina nitida
Schizoporella cornuta
Schizoporella errata
Phylum Annelida
Hydroides dianthus
Sabellaria vulgaris
Phylum Mollusca
Mitrella lunata
Phylum Arthropoda
Balanus venustus
Micropanope xanthiformis
Phylum Echinodermata
Ophiothrix angulata

Table 23. Occurrence of epifaunal invertebrates in dredge collections from station DS21.

Phylum Porifera
- *Cliona* sp.

Phylum Cnidaria
- *Ectopleura dumortieri*
- *Zanclea costata*
- *Turritopsis nutricula*
- *Eudendrium* sp.
- *Halecium* sp.
- *Lovenella grandis*
- *Clytia cylindrica*
- *Dynamena cornicina*
- *Sertularella conica*
- *Schizotricha tenella*
- *Telesto sanguinea*
- Actiniaria (undet.)
- *Astrangia danae*

Phylum Bryozoa
- *Aetea anguina*
- Anasca A (undet.)
- *Bowerbankia gracilis*
- *Caulibugula pearsei*
- Celleporidae (undet.)
- *Cleidochasma porcellanum*
- *Cribrilaria radiata*
- *Crisia* sp.
- *Floridina parvicella*
- *Hippaliosina rostrigera*
- *Hippopleurifera mucronata*
- *Hippoporella uvulifera*
- *Hippoporina verrilli*
- *Membranipora tenuis*
- *Microporella ciliata*
- *Parasmittina nitida*
- *Phylactella aviculifera*
- *Reptadeonella violacea*
- *Schizoporella cornuta*
- *Schizoporella errata*
- *Sundanella sibogae*
- *Trypsostega venusta*

Phylum Sipuncula
- Sipunculid (undet.)

Phylum Annelida
- *Sabellaria vulgaris*
- *Hypsicomus phaeotaenia*
- *Hydroides dianthus*
- Polychaeta A (undet.)

Table 23. (continued)

Phylum Mollusca
- *Diodora cayenensis*
- *Crepidula fornicata*
- *Anachis translirata*
- *Anomia simplex*
- *Ostrea equestris*
- *Chama macerophylla*
- *Octopus vulgaris*

Phylum Arthropoda
- *Kochlorine floridana*
- *Balanus venustus*
- Xanthidae (undet.)
- *Podochela sidneyi*

Phylum Echinodermata
- *Ophiothrix angulata*
- *Arbacia punctulata*

Phylum Chordata
- *Amaroucium* sp.
- *Didemnum candidum*
- *Styela plicata*
- Ascidiacea A (undet.)
- Ascidiacea B (undet.)

Table 24. Occurrence of epifaunal invertebrates in dredge collections from station DS22.

Phylum Cnidaria
Astrangia danae
Phylum Bryozoa
Hippopleurifera mucronata
Hippoporella uvulifera
Microporella ciliata
Parasmittina nitida
Schizoporella cornuta
Phylum Annelida
Sabellaria vulgaris
Hydroides dianthus
Phylum Mollusca
Chama macerophylla
Phylum Echinodermata
Astropecten duplicatus

Table 25. Occurrence of epifaunal invertebrates in dredge collections from station DS23.

Nothing recovered

Table 26. Occurrence of epifaunal invertebrates in dredge collections from DS24.

Phylum Bryozoa
Amathia sp.
Aeverrillia setigera
Phylum Arthropoda
Ovalipes stephensoni

Table 27. Occurrence of epifaunal invertebrates in dredge collections from station DS25.

Phylum Porifera
- *Cliona* sp.

Phylum Cnidaria
- *Ectopleura dumortieri*
- *Zanclea costata*
- *Turritopsis nutricula*
- *Eudendrium* sp.
- *Halecium dysymmetrum*
- *Halecium* sp.
- *Clytia cylindrica*
- *Dynamena cornicina*
- *Schizotricha tenella*
- *Telesto fruticulosa*
- *Telesto sanguinea*
- *Astrangia danae*

Phylum Bryozoa
- *Aetea anguina*
- *Bowerbankia gracilis*
- *Cleidochasma porcellanum*
- *Copidozoum tenuirostre*
- *Cribrilaria radiata*
- *Crisia* sp.
- Cyclostomata A (undet.)
- *Discoporella umbellata*
- *Floridina parvicella*
- *Hippopleurifera mucronata*
- *Hippoporina contracta*
- *Hippoporina verrilli*
- *Membranipora tenuis*
- *Microporella ciliata*
- *Parasmittina nitida*
- *Phylactella aviculifera*
- *Schizoporella cornuta*
- *Schizoporella errata*
- *Sundanella sibogae*
- *Trypsostega venusta*

Phylum Sipuncula
- Sipunculid (undet.)

Phylum Annelida
- *Lepidonotus sublevis*
- *Sabellaria vulgaris*
- *Hypsicomus phaeotaenia*
- *Hydroides dianthus*
- *Pomatoceros caeruleus*

Phylum Mollusca
- *Crepidula fornicata*

Table 27. (continued)

Crepidula plana
Muricidae (undet.)
Mitrella lunata
Anadara transversa
Musculus lateralis
Anomia simplex
Chama macerophylla
Chaetopleura apiculata
Phylum Arthropoda
Kochlorine floridana
Balanus calidus
Balanus venustus
Paguridae (undet.)
Portunus gibbesii
Phylum Echinodermata
Astropecten duplicatus
Ophiothrix angulata
Arbacia punctulata
Lytechinus variegatus
Phylum Chordata
Didemnum candidum
Ascidiacea A (undet.)
Ascidiacea B (undet.)

Table 28. Occurrence of epifaunal invertebrates in dredge collections from station DS26.

Phylum Porifera
- *Cliona* sp.

Phylum Cnidaria
- *Turritopsis nutricula*
- *Eudendrium* sp.
- *Halecium dysymmetrum*
- *Clytia cylindrica*
- *Monostaechas quadridens*
- *Schizotricha tenella*
- *Leptogorgia setacea*

Phylum Bryozoa
- *Aetea anguina*
- *Cleidochasma porcellanum*
- *Cribrilaria radiata*
- Cyclostomata A (undet.)
- *Hippopleurifera mucronata*
- *Hippoporella uvulifera*
- *Membranipora tenuis*
- *Microporella ciliata*
- *Parasmittina nitida*
- *Phylactella aviculifera*
- *Trypsostega venusta*

Phylum Sipuncula
- Sipunculid (undet.)

Phylum Annelida
- *Lepidonotus sublevis*
- *Sabellaria vulgaris*
- *Hypsicomus phaeotaenia*
- *Hydroides dianthus*
- *Pomatoceros caeruleus*
- Polychaeta A (undet.)

Phylum Mollusca
- *Crepidula plana*
- *Eupleura caudata*
- *Mitrella lunata*
- *Oliva sayana*
- *Anadara transversa*
- *Ostrea equestris*
- *Chama macerophylla*
- *Chaetopleura apiculata*

Phylum Arthropoda
- *Balanus calidus*
- *Balanus venustus*
- *Chelonibia patula*
- *Ovalipes stephensoni*
- *Portunus gibbesii*

Table 28. (continued)

	Portunus spinimanus
	Xanthidae (undet.)
Phylum Echinodermata	
	Astropecten duplicatus
	Ophiothrix angulata
	Arbacia punctulata
Phylum Chordata	
	Styela plicata

Table 29. Occurrence of epifaunal invertebrates in dredge collections from station DS27.

Phylum Cnidaria
Turritopsis nutricula
Cuspidella humilis
Clytia cylindrica
Astrangia danae
Phylum Bryozoa
Parasmittina nitida
Phylum Sipuncula
Sipunculid (undet.)
Phylum Annelida
Hydroides dianthus
Sabellaria vulgaris
Phylum Mollusca
Chama macerophylla
Phylum Arthropoda
Balanus venustus
Ovalipes stephensoni
Phylum Echinodermata
Mellita quinquesperforata

Table 30. Occurrence of epifaunal invertebrates in dredge collections from station DS28.

Phylum Cnidaria
Ectopleura dumortieri
Turritopsis nutricula
Clytia cylindrica
Schizotricha tenella
Plumularia floridana
Telesto sanguinea
Phylum Bryozoa
Parasmittina nitida
Schizoporella cornuta
Phylum Arthropoda
Balanus venustus
Ovalipes stephensoni
Phylum Echinodermata
Astropecten duplicatus

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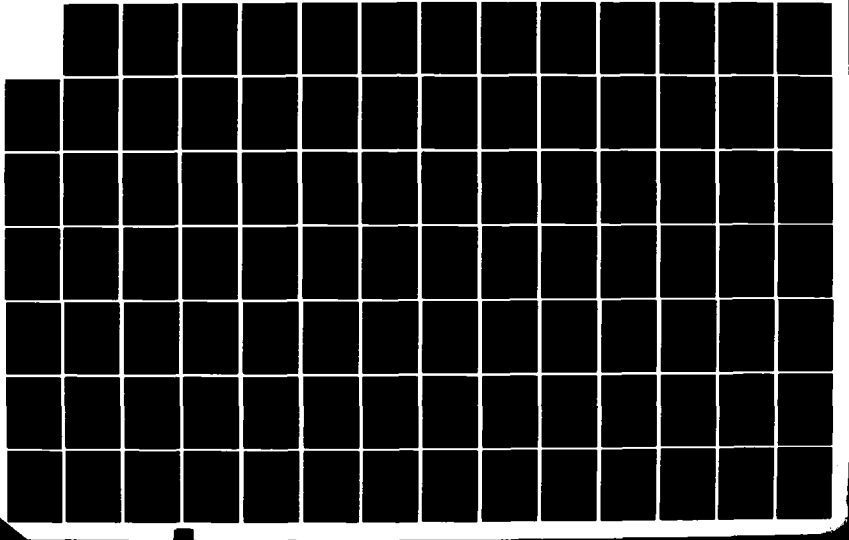

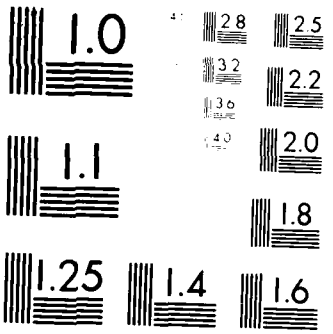

Table 31. Occurrence of epifaunal invertebrates in dredge collections from station DS29.

Phylum Cnidaria
Ectopleura dumortieri
Eudendrium sp.
Halecium dysymmetrum
Clytia cylindrica
Schizotricha tenella
Astrangia danae
Phylum Bryozoa
Aetea anguina
Cribrilaria radiata
Hippopleurifera mucronata
Hippoporina verrilli
Membranipora tenuis
Parasmittina nitida
Schizoporella cornuta
Schizoporella errata
Phylum Sipuncula
Sipunculid (undet.)
Phylum Echiura
Echiurid (undet.)
Phylum Annelida
Sabellaria vulgaris
Hypsicomus phaeotaenia
Hydroides dianthus
Pomatoceros caeruleus
Phylum Mollusca
Crepidula fornicata
Crepidula plana
Polinices duplicatus
Mitrella lunata
Anadara transversa
Anomia simplex
Ostrea equestris
Chama macerophylla
Octopus vulgaris
Phylum Arthropoda
Kochlorine floridana
Balanus venustus
Xanthidae (undet.)
Phylum Echinodermata
Ophiolepis elegans
Phylum Chordata
Amaroucium sp.

Table 32. Occurrence of epifaunal invertebrates in dredge collections from station DS30.

Phylum Porifera
- *Cliona* sp.
- *Leucosolenia canariensis*

Phylum Cnidaria
- *Turritopsis nutricula*
- *Eudendrium* sp.
- *Halecium dysymmetrum*
- *Halecium* sp.
- *Clytia cylindrica*
- *Dynamena cornicina*
- *Schizotricha tenella*
- *Telesto sanguinea*
- *Astrangia danae*

Phylum Platyhelminthes
- Turbellaria (undet.)

Phylum Bryozoa
- *Aetea anguina*
- *Cribrilaria radiata*
- Cyclostomata A (undet.)
- *Membranipora tenuis*
- *Microporella ciliata*
- *Parasmittina nitida*
- *Phylactella aviculifera*

Phylum Sipuncula
- Sipunculid (undet.)

Phylum Annelida
- *Polydora* sp.
- *Hypsicomus phaeotaenia*
- *Hydroides dianthus*
- *Pomatoceros caeruleus*

Phylum Mollusca
- *Crepidula fornicata*
- *Eupleura caudata*
- *Mitrella lunata*
- Gastropoda (undet.)
- *Anadara transversa*
- *Argopecten gibbus*
- *Chama macerophylla*
- *Chaetopleura apiculata*

Phylum Arthropoda
- *Balanus calidus*
- *Balanus venustus*
- *Portunus gibbesii*
- *Pilumnus* sp.

Phylum Echinodermata
- *Ophiothrix angulata*

Table 32. (continued)

Arbacia punctulata
Phylum Chordata
Styela plicata
Ascidiacea A (undet.)

Table 33. Occurrence of epifaunal invertebrates in dredge collections from station DS31.

Phylum Cnidaria
Clytia cylindrica
Telesto fruticulosa
Phylum Bryozoa
Cribrilaria radiata
Membranipora tenuis
Microporella ciliata
Parasmittina nitida
Phylum Annelida
Lepidonotus sublevis
Sabellaria vulgaris
Phylum Mollusca
Anachis translirata
Mitrella lunata
Acanthodoris pilosa
Anadara transversa
Chama macerophylla
Phylum Arthropoda
Balanus calidus
Balanus venustus
Phylum Echinodermata
Astropecten duplicatus
Arbacia punctulata

Table 34. Occurrence of epifaunal invertebrates in dredge collections from station DS32.

Phylum Cnidaria
Ectopleura dumortieri
Schizotricha tenella
Leptogorgia virgulata
Phylum Bryozoa
Cleidochasma porcellanum
Copidozoum tenuirostre
Cribrilaria radiata
Floridina parvicella
Hippopleurifera mucronata
Hippoporella uvulifera
Hippoporina verrilli
Membranipora tenuis
Microporella ciliata
Parasmittina nitida
Phylactella aviculifera
Phylum Sipuncula
Sipunculid (undet.)
Phylum Annelida
Hydroides dianthus
Phylum Mollusca
Oliva sayana
Ostrea equestris
Chama macerophylla
Phylum Arthropoda
Balanus venustus
Ovalipes stephensoni

Table 35. Occurrence of epifaunal invertebrates in dredge collections from station DS33.

Phylum Porifera
- *Cliona* sp.
- *Leucosolenia canariensis*

Phylum Cnidaria
- *Ectopleura dumortieri*
- *Zanclea costata*
- *Turritopsis nutricula*
- *Lovenella grandis*
- *Leptogorgia setacea*
- *Astrangia danae*

Phylum Platyhelminthes
- Turbellaria (undet.)

Phylum Bryozoa
- *Aetea anguina*
- *Amathia distans*
- Anasca A (undet.)
- *Cleidochasma porcellanum*
- *Cribrilaria radiata*
- *Cribrilina floridana*
- Cyclostomata A (undet.)
- *Floridina parvicella*
- *Hippopleurifera mucronata*
- *Hippoporella uvulifera*
- *Lichenopora* sp.
- *Parasmittina nitida*
- *Phylactella aviculifera*
- *Trypsostega venusta*

Phylum Sipuncula
- Sipunculid (undet.)

Phylum Annelida
- *Lepidonotus sublevis*
- *Hypsicomus phaeotaenia*
- *Pomatoceros caeruleus*

Phylum Mollusca
- *Turbo castanea*
- *Chama macerophylla*
- *Chaetopleura apiculata*
- *Octopus vulgaris*

Phylum Arthropoda
- *Kochlorine floridana*
- *Balanus calidus*
- *Balanus venustus*
- *Ovalipes stephensoni*
- *Portunus gibbesii*
- *Podochela sidneyi*

Phylum Echinodermata

Table 35. (continued)

Asterias forbesi
Arbacia punctulata
Clypeaster subdepressus
Phylum Chordata
Didemnum candidum
Ascidiacea C

Table 36. Occurrence of epifaunal invertebrates in dredge collections from station DS34.

Phylum Porifera
Cliona sp.
Phylum Cnidaria
Ectopleura dumortieri
Turritopsis nutricula
Halecium dysymmetrum
Clytia cylindrica
Dynamena cornicina
Phylum Bryozoa
Aetea anguina
Cleidochasma porcellanum
Copidozoum tenuirostre
Cribrilaria radiata
Cyclostomata A (undet.)
Floridina parvicella
Hippopleurifera mucronata
Lichenopora sp.
Microporella ciliata
Parasmittina nitida
Phylactella uvulifera
Trypsostega venusta
Phylum Sipuncula
Sipunculid (undet.)
Phylum Annelida
Sabellaria vulgaris
Hypsicomus phaeotaenia
Hydroides dianthus
Pomatoceros caeruleus
Phylum Mollusca
Crepidula fornicata
Chaetopleura apiculata
Anadara transversa
Ostrea equestris
Chama macerophylla
Phylum Arthropoda
Kochlorine floridana
Balanus calidus
Balanus venustus
Hypoconcha sabulosa
Pilumnus sp.
Phylum Echinodermata
Arbacia punctulata
Phylum Chordata
Didemnum candidum
Styela plicata

Table 37.Occurrence of epifaunal invertebrates in dredge collections from station DS35.

Phylum Porifera
Cliona sp.
Phylum Cnidaria
Ectopleura dumortieri
Turritopsis nutricula
Clytia cylindrica
Dynamena cornicina
Monostaechas quadridens
Leptogorgia setacea
Phylum Bryozoa
Aetea anguina
Cribrilaria radiata
Cyclostomata A (undet.)
Floridina parvicella
Lichenopora sp.
Membranipora tenuis
Microporella ciliata
Parasmittina nitida
Phylactella aviculifera
Trypsostega venusta
Phylum Sipuncula
Sipunculid (undet.)
Phylum Annelida
Hydroides dianthus
Pomatoceros caeruleus
Phylum Mollusca
Chama macerophylla
Phylum Arthropoda
Balanus venustus
Ovalipes stephensoni
Phylum Echinodermata
Asterias forbesi

Table 38. Occurrence of epifaunal invertebrates in dredge collections from station DS36.

Phylum Cnidaria
Ectopleura dumortieri
Clytia cylindrica
Lovenella grandis
Leptogorgia setacea
Phylum Bryozoa
Hippopleurifera mucronata
Membranipora tenuis
Schizoporella cornuta
Phylum Annelida
Hydroides dianthus

Table 39. Occurrence of epifaunal invertebrates in dredge collections from station DS37.

Phylum Cnidaria
Lovenella grandis
Phylum Bryozoa
Hippoporella uvulifera
Lichenopora sp.
Microporella ciliata
Parasmittina nitida
Phylum Annelida
Hydroides dianthus
Phylum Mollusca
Chama macerophylla
Phylum Arthropoda
Balanus venustus

Table 40. Occurrence of epifaunal invertebrates in dredge collections from station DS38.

Phylum Porifera
- Orange sponge (undet.)
- Cliona sp.

Phylum Cnidaria
- Zanclea costata
- Turritopsis nutricula
- Halecium dysymmetrum
- Schizotricha tenella
- Telesto sanguinea
- Epizoanthus americanus
- Astrangia danae

Phylum Platyhelminthes
- Turbellaria (undet.)

Phylum Entoprocta
- Entoproct (undet.)

Phylum Bryozoa
- Aetea anguina
- Amathia distans
- Bowerbankia gracilis
- Caulibugula pearsei
- Cleidochasma porcellanum
- Cribrilaria radiata
- Cribrilina floridana
- Crisia sp.
- Cyclostomata A (undet.)
- Floridina parvicella
- Hippaliosina rostrigera
- Hippopleurifera mucronata
- Lichenopora sp.
- Membranipora tenuis
- Microporella ciliata
- Nolella stipata
- Parasmittina nitida
- Phylactella uvulifera
- Reptadeonella violacea
- Schizoporella cornuta
- Trypsostega venusta

Phylum Sipuncula
- Sipunculid (undet.)

Phylum Annelida
- Sabellaria vulgaris
- Hypsicomus phaeotaenia
- Pomatoceros caeruleus

Phylum Mollusca
- Crepidula plana
- Musculus lateralis

Table 40. (continued)

Lithophaga bisulcata
Chama macerophylla
Chaetopleura apiculata
Phylum Arthropoda
Kochlorine floridana
Balanus calidus
Balanus venustus
Phylum Echinodermata
Luidia clathrata
Astropecten articulatus
Asterias forbesi
Ophioderma appressum
Lytechinus variegatus
Phylum Chordata
Didemnum candidum
Ascidiacea B (undet.)

Table 41. Occurrence of epifaunal invertebrates in dredge collections from station DS39.

Phylum Porifera
Leucosolenia canariensis
Phylum Cnidaria
Turritopsis nutricula
Clytia cylindrica
Dynamena cornicina
Schizotricha tenella
Telesto sanguinea
Leptogorgia setacea
Phylum Bryozoa
Aetea anguina
Cleidochasma porcellanum
Cribrilaria radiata
Cyclostomata A (undet.)
Hippopleurifera mucronata
Lichenopora sp.
Membranipora tenuis
Microporella ciliata
Parasmittina nitida
Phylactella aviculifera
Trypsostega venusta
Phylum Sipuncula
Sipunculid (undet.)
Phylum Annelida
Pomatoceros caeruleus
Phylum Mollusca
Anadara transversa
Chama macerophylla
Phylum Arthropoda
Balanus calidus
Balanus venustus
Caprellidae (undet.)
Phylum Echinodermata
Asterias forbesi
Ophiothrix angulata
Arbacia punctulata
Phylum Chordata
Didemnum candidum

Table 42. Occurrence of epifaunal invertebrates in dredge collections from station DS40.

Phylum Porifera
Leucosolenia canariensis
Cliona sp.
Porifera (undet.)
Phylum Cnidaria
Zanclea costata
Turritopsis nutricula
Clytia cylindrica
Telesto sanguinea
Actiniaria (undet.)
Phylum Bryozoa
Aetea truncata
Cribrilaria radiata
Hippopleurifera mucronata
Membranipora tenuis
Microporella ciliata
Parasmittina nitida
Phylactella avicularifera
Phylum Sipuncula
Sipunculid (undet.)
Phylum Annelida
Lepidonotus sublevis
Hydroides dianthus
Pomatoceros caeruleus
Phylum Mollusca
Chama macerophylla
Phylum Arthropoda
Balanus calidus
Balanus venustus
Phylum Echinodermata
Asterias forbesi
Arbacia punctulata

Table [illegible]. Abundance of macroinvertebrate species in grab collections from station D601. (A = Amphipoda; Cn = Cnidaria; D = Decapoda; E = Echiuroinformis; I = Isopoda; M = Mollusca; P = Polychaeta).

	D601				
Species	Total Number	Number/0.1m² $\bar{x}$	SD	Estimated Number/m²	Rank by Number
Nonatys picta (P)	28	5.6	1.5	56	1.0
Nemertina (undet.) (A)	10	2.0	1.0	20	2.0
Tellina proxima (M)	8	1.6	1.5	16	3.0
Pseudopolydora kempfi floridana (A)	7	1.4	1.3	14	4.0
Tellina texana (M)	5	1.0	2.2	10	5.0
Prionospio (Minuspio) cf. heilprini (A)	4	0.8	0.8	8	7.5
Sonchis pentiformis (Cn)	4	0.8	0.4	8	7.5
Strigilla mirabilis (M)	4	0.8	0.8	8	7.5
Magelona rosea (P)	4	0.8	1.1	8	7.5
Trichophoxus epistomus (A)	3	0.6	1.3	6	11.0
Melita longidactylia (A)	3	0.6	0.4	6	11.0
Aharax variani (P)	3	0.6	0.9	6	11.0
Dissodactylus mellitae (D)	2	0.4	0.4	4	15.5
Lucinidae (undet.) (M)	2	0.4	0.5	4	15.5
Glycera sp. (Var. P)	2	0.4	0.5	4	15.5
Nonida littorea (P)	2	0.4	0.5	4	15.5
Onuphis eremita (P)	2	0.4	0.5	4	15.5
Haploscoloplos fragilis (P)	2	0.4	0.5	4	15.5
Trachypeneus constrictus (D)	1	0.2	0.4	2	23.0
Leptochela serratorbita (D)	1	0.2	0.4	2	23.0
Pinnixa savana (D)	1	0.2	0.4	2	23.0
Listrosaccus sp. A (My)	1	0.2	0.4	2	23.0
Viridotea stenops (I)	1	0.2	0.4	2	23.0
Nemertina (undet.) B	1	0.2	0.4	2	23.0
Glycera capitata (P)	1	0.2	0.4	2	23.0
Spiophanes bombyx (P)	1	0.2	0.4	2	23.0
Spiochaetopterus costarum oculatus (P)	1	0.2	0.4	2	23.0

Table ++. Abundance of macroinvertebrate species in grab collections from station DS02. (A = Amphipoda; C = Cumacea; Cn = Cnidaria; D = Decapoda; E = Echinodermata; M = Mollusca; P = Polychaeta).

	DS02				
Species	Total Number	Number 0.1m^{-2} $\bar{x}$	SD	Estimated Number m^{-2}	Rank by Number
Nephtys picta (P)	93	18.6	4.7	186	1.0
Magelona rosea (P	33	6.6	3.8	66	2.0
Spiophanes bombyx (P)	17	3.4	2.6	34	3.0
Sirratulus sp. (P	12	2.4	3.9	24	4.0
Dissodactylus mellitae (D)	8	1.6	2.6	16	5.0
Tharyx marioni (P)	6	1.2	1.1	12	6.5
Mellita quinquiesperforata (E)	6	1.2	2.2	12	6.5
Tellina probrina (M)	5	1.0	1.4	10	8.0
Onuphis eremita (P)	5	1.0	1.2	10	8.0
Paraprionospio tragilis (P)	5	1.0	1.0	10	8.0
Axinostylis smithi (P)	4	0.8	1.1	8	11.0
Penilia renifermis (Cn	4	0.8	0.8	8	11.0
Ilyvera fibrinchiata (P)	4	0.8	1.0	8	11.0
Corbies limicola (D)	3	0.6	0.9	6	16.0
Pinnixa savina (D)	3	0.6	0.5	6	16.0
Nemertina (undet. A	3	0.6	0.5	6	16.0
Nemertina (undet.) B	3	0.6	1.3	6	16.0
Strigilla mirabilis (M)	3	0.6	0.9	6	16.0
Tellina texana (M	3	0.6	0.9	6	16.0
Donaxa texasena (P)	3	0.6	0.5	6	16.0
Brachyura (undet.) A (D)	2	0.4	0.5	4	21.5
Pseudoplatyonnopus floridanus (A)	2	0.4	0.9	4	21.5
Owenia fusiformis (P)	2	0.4	0.5	4	21.5
Paraprionospio pinnata (P)	2	0.4	0.5	4	21.5
Leptochela serratorbita (D)	1	0.2	0.4	2	28.0
Pagurus longicarpus (D)	1	0.2	0.4	2	28.0
Decapoda larvae (undet.)	1	0.2	0.4	2	28.0
Batea catharinensis (A)	1	0.2	0.4	2	28.0
Natica pusilla (M)	1	0.2	0.4	2	28.0
Mulinia lateralis (M)	1	0.2	0.4	2	28.0
Scoloplos rubra (P)	1	0.2	0.4	2	28.0
Ilyvera capitata (P)	1	0.2	0.4	2	28.0
Ceratonereis irritabilis (P	1	0.2	0.4	2	28.0

Table 43. Abundance of macroinvertebrate species in grab collections from station DS03. (A = Amphipoda; C = Cumacea; Cn = Cnidaria; D = Decapoda; M = Mollusca; P = Polychaeta).

	DS03				
Species	Total Number	Number 0.1m² $\bar{X}$	SD	Estimated Number m²	Rank by Number
Spiophanes bombyx (P)	81	16.2	8.2	162	1.0
Nephtys picta (P)	70	14.0	4.4	140	2.0
Magelona phyllisae (P)	12	2.4	2.3	24	3.0
Notomastus lobatus (P)	9	1.8	1.8	18	4.5
Prionospio dayi (P)	9	1.8	1.1	18	4.5
Haploscoloplos fragilis (P)	7	1.4	0.9	14	6.0
Callianassa atlantica (D)	6	1.2	0.8	12	7.5
Phyllodoce arenae (P)	6	1.2	1.1	12	7.5
Nemertina (undet.) A	5	1.0	0.7	10	10.5
Tellina iris (M)	5	1.0	0.7	10	10.5
Cirratulus sp. (P)	5	1.0	1.0	10	10.5
Aglaophamus verrilli (P)	5	1.0	0.7	10	10.5
Ogyrides limicola (D)	4	0.8	0.4	8	14.5
Solen viridis (M)	4	0.8	1.3	8	14.5
Nypera dibranchiata (P)	4	0.8	0.8	8	14.5
Anaitis eremita (P)	4	0.8	1.1	8	14.5
Brachyura (undet.) B (D)	3	0.6	0.9	6	18.5
Tharyx marioni (P)	3	0.6	0.5	6	18.5
Tonicia littorea (P)	3	0.6	0.5	6	18.5
Magelona rosea (P)	3	0.6	0.9	6	18.5
Magelona sp. (Day '73) (P)	2	0.4	0.9	4	22.5
Scoloplos rubra (P)	2	0.4	0.5	4	22.5
Paraprionospio pinnata (P)	2	0.4	0.5	4	22.5
Stenelais limicola (P)	2	0.4	0.9	4	22.5
Leptochela serratorbita (D)	1	0.2	0.4	2	33.0
Albunea paretii (D)	1	0.2	0.4	2	33.0
Pinnixa sayana (D)	1	0.2	0.4	2	33.0
Listriella barnardi (A)	1	0.2	0.4	2	33.0
Oxyurostylis smithi (C)	1	0.2	0.4	2	33.0
Pseudoplatyischnopus floridanus (A)	1	0.2	0.4	2	33.0
Retilla reniformis (Cn)	1	0.2	0.4	2	33.0
Natica pusilla (M)	1	0.2	0.4	2	33.0
Mostomia sp. A (M)	1	0.2	0.4	2	33.0
Unionidae (undet.) A (M)	1	0.2	0.4	2	33.0
Abra aequalis (M)	1	0.2	0.4	2	33.0
Lumbrineris impatiens (P)	1	0.2	0.4	2	33.0
Nypera sp. (Har.) (P)	1	0.2	0.4	2	33.0
Steone lactea (P)	1	0.2	0.4	2	33.0
Lumbrineris latreilli (P)	1	0.2	0.4	2	33.0
Owenia fusiformis (P)	1	0.2	0.4	2	33.0
Magelona papillicornis (P)	1	0.2	0.4	2	33.0

Table 40. Abundance of macroinvertebrate species in grab collections from station DS04. (A = Amphipoda; C = Cumacea; Cn = Cnidaria; D = Decapoda; E = Echinodermata; M = Mollusca; P = Polychaeta; St = Stomatopoda).

	DS04				
Species	Total Number	Number 0.1m² $\bar{x}$	Number 0.1m² SD	Estimated Number m²	Rank by Number
Sphaerosyllis bombyx (P)	96	14.2	13.6	192	1.0
Magelona sp. (Day 7) (P)	62	12.4	7.6	124	2.0
Nephtys picta (P)	34	6.8	3.2	68	3.0
Onuphis eremita (P)	18	3.6	2.1	36	4.5
Notocirrus spiniferus (P)	18	3.6	1.1	36	4.5
Callianassa atlantica (D)	9	1.8	1.9	18	7.5
Tiron tropakis (A)	9	1.8	1.1	18	7.5
Cirratulus sp. (P)	9	1.8	1.3	18	7.5
Clymenella torquata (P)	9	1.8	1.9	18	7.5
Pinnixa savana (D)	8	1.6	1.5	16	10.0
Loimia medusa (P)	7	1.4	1.6	14	11.5
Owenia fusiformis (P)	7	1.4	1.1	14	11.5
Tellina texana (M)	6	1.2	2.2	12	13.5
Pelecypoda (undet.) B	6	1.2	1.3	12	13.5
Tharyx marioni (P)	6	1.2	0.8	12	13.5
Notomastus hemipodus (P)	6	1.2	1.6	12	13.5
Glycera dibranchiata (P)	6	1.2	1.3	12	13.5
Haplosyllobus fragilis (P)	6	1.2	1.8	12	13.5
Nemertina (undet.) A	5	1.0	1.2	10	20.5
Sigambra tentaculata (P)	5	1.0	1.2	10	20.5
Magelona phyllisae (P)	5	1.0	1.4	10	20.5
Phyllodoce arenae (P)	5	1.0	1.7	10	20.5
Glycera americana (P)	4	0.8	0.8	8	24.0
Scoloplos rubra (P)	4	0.8	0.8	8	24.0
Ioniada littorea (P)	4	0.8	0.8	8	24.0
Dissodactylus mellitae (D)	3	0.6	1.3	6	28.0
Batea catharinensis (A)	3	0.6	0.9	6	28.0
Solen viridis (M)	3	0.6	0.5	6	28.0
Macroclymene zonalis (P)	3	0.6	0.9	6	28.0
Armandia agilis (P)	3	0.6	0.9	6	28.0
Oxyurostylis smithi (C)	2	0.4	0.5	4	32.5
Nemertina (undet.) B	2	0.4	0.9	4	32.5
Mellita quinquiesperforata (E)	2	0.4	0.9	4	32.5
Tellina iris (M)	2	0.4	0.5	4	32.5
Brachyura (undet.) A (D)	1	0.2	0.4	2	45.5
Pagurus longicarpus (D)	1	0.2	0.4	2	45.5
Squilla neglecta (St)	1	0.2	0.4	2	45.5
Pseudoplatyischnopus floridanus (A)	1	0.2	0.4	2	45.5
Mellita appendiculata (A)	1	0.2	0.4	2	45.5
Actiniaria (undet.) (Cn)	1	0.2	0.4	2	45.5
Ophiuroidea (undet.) B (E)	1	0.2	0.4	2	45.5
Turbonilla sp. A (M)	1	0.2	0.4	2	45.5
Busycon carica (M)	1	0.2	0.4	2	45.5
Abra aequalis (M)	1	0.2	0.4	2	45.5
Tellina fisicata (M)	1	0.2	0.4	2	45.5
Unknown Taxon A	1	0.2	0.4	2	45.5
Sabellaria vulgaris (P)	1	0.2	0.4	2	45.5
Glycera sp. (Gar.) (P)	1	0.2	0.4	2	45.5
Aglaophamus verrilli (P)	1	0.2	0.4	2	45.5
Lumbrineris latreilli (P)	1	0.2	0.4	2	45.5
Paraonella polynoides (P)	1	0.2	0.4	2	45.5
Pectinaria gouldii (P)	1	0.2	0.4	2	45.5
Armandia brievior (P)	1	0.2	0.4	2	45.5
Lumbrineris tenuis (P)	1	0.2	0.4	2	45.5
Diopatra cuprea (P)	1	0.2	0.4	2	45.5
Prionospio dayi (P)	1	0.2	0.4	2	45.5

Table 4. Abundance of macroinvertebrate species in grab collections from station DS 5. (A = Amphipoda; Br = Brachiopoda; Ca = Caudofoveata; D = Decapoda; E = Echinodermata; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipuncula).

DS05

Species	Total Number	Number/0.1m² x̄	Number/0.1m² SD	Estimated Number m⁻²	Rank by Number
Branchiostoma caribaeum (A)	68	13.6	9.5	136	1.0
Tharyx marioni (P)	60	12.0	9.2	120	2.0
Prionospio cristata (P)	55	11.0	3.4	110	3.0
Pseudeurythoe ambigua (P)	37	7.4	7.0	74	4.0
Nematoda (undet.)	36	7.2	4.2	72	5.0
Crassinella lunulata (M)	30	6.0	10.7	60	6.0
Sabellaria vulgaris (P)	26	5.2	11.1	52	7.5
Nephtys picta (P)	26	5.2	1.9	52	7.5
Goniadides carolinae (P)	25	5.0	5.2	50	9.0
Tiron trapakis (A)	20	4.0	5.7	40	10.0
Spiophanes bombyx (P)	14	2.8	1.9	28	11.0
Cirratulidae (undet.) B (P)	12	2.4	2.3	24	12.0
Glycera oxycephala (P)	11	2.2	2.2	22	13.5
Sigambra bassi (P)	11	2.2	1.8	22	13.5
Armandia maculata (P)	8	1.6	1.5	16	15.0
Nemertina (undet.) A	7	1.4	1.1	14	17.0
Tellina texana (M)	7	1.4	1.3	14	17.0
Glycera dibranchiata (P)	7	1.4	1.5	14	17.0
Ancinus depressus (I)	6	1.2	1.6	12	19.5
Pseudoplatyxhnopus floridanus (A)	6	1.2	0.4	12	19.5
Tellina probrina (M)	5	1.0	1.0	10	21.0
Mellita quinquiesperforata (E)	4	0.8	0.4	8	24.0
Crassinella martinicensis (M)	4	0.8	1.3	8	24.0
Magelona sp. (Day 73) (P)	4	0.8	0.8	8	24.0
Apistobranchus tullbergi (P)	4	0.8	1.3	8	24.0
Drilonereis magna (P)	4	0.8	0.4	8	24.0
Pagurus longicarpus (D)	3	0.6	0.9	6	28.5
Aparchura magnifica (I)	3	0.6	0.9	6	28.5
Aspidosiphon spinalis (S)	3	0.6	1.3	6	28.5
Schistomeringos rudolphi (P)	3	0.6	0.9	6	28.5
Brachyura (undet.) A (D)	2	0.4	0.9	4	37.5
Dissodactylus mellitae (D)	2	0.4	0.9	4	37.5
Listriella barnardi (A)	2	0.4	0.9	4	37.5
Sorophium sp. (A)	2	0.4	0.9	4	37.5
Polynoidae (undet.) B (P)	2	0.4	0.5	4	37.5
Diplodonta pyramidata (Br)	2	0.4	0.5	4	37.5
Erycina pusenstrisa (M)	2	0.4	0.9	4	37.5
Abra aequalis (M)	2	0.4	0.5	4	37.5
Glycinde sp. (P)	2	0.4	0.9	4	37.5
Heteromastus filiformis (P)	2	0.4	0.5	4	37.5
Nemertina (undet.) (P)	2	0.4	0.9	4	37.5
Nereis succinea (P)	2	0.4	0.5	4	37.5
Hobsonia florida (P)	2	0.4	0.9	4	37.5
Prionospio lobi (P)	2	0.4	0.9	4	37.5
Nereis succinea (P)	1	0.2	0.4	2	51.5
Pyramidellidae (undet.) (D)	1	0.2	0.4	2	51.5
Unciola americanum (A)	1	0.2	0.4	2	51.5
Dentalium eboreum (M)	1	0.2	0.4	2	51.5
Nucula proxima (M)	1	0.2	0.4	2	51.5
Brania wellfleetensis (M)	1	0.2	0.4	2	51.5
Leitoscoloplos robustus (P)	1	0.2	0.4	2	51.5
Axiidea undet. (D)	1	0.2	0.4	2	51.5
Aricidea suecica (P)	1	0.2	0.4	2	51.5
Aricidea cerrata (P)	1	0.2	0.4	2	51.5
Exogone heterosetosa (P)	1	0.2	0.4	2	51.5
Exogone dispar (P)	1	0.2	0.4	2	51.5
Caecum cf. floridanum (M)	1	0.2	0.4	2	51.5
Magelona rosea (P)	1	0.2	0.4	2	51.5
Nereidae undet. (P)	1	0.2	0.4	2	51.5

Table 48. Abundance of major invertebrate species in grab collections from station DS06. A = Amphipoda; Br = Brachiopoda; C = Cumacea; Ec = Echinodermata; Ev = Entoprocta; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; Pn = Pycnogonida; S = Sipuncula.

DS06

Species	Total Number	Number/0.1m² x̄	Number/0.1m² sd	Estimated Number/m²	Rank by Number
Myrela arctica (P)	182	36.4	17.1	364	1.0
Polycirrus eximius (P	95	19.0	11.9	190	2.0
Crassinella lunulata (M)	78	15.6	5.1	156	3.0
Spiochaetopterus (P)	46	9.2	6.3	92	4.0
Onuphis nebulosa (P)	39	7.8	4.1	78	5.0
Sabellaria vulgaris (P	33	6.6	4.2	66	6.0
Cuspidaria rostrata (M)	30	6.0	6.5	60	7.0
Scleroplanes bombyx (P)	29	5.8	4.0	58	8.0
Lumbrineris tenuis (P)	27	5.4	4.3	54	9.0
Nematoda (undet.)	24	4.8	5.2	48	10.0
Mysidopsis bigelowi (My)	22	4.4	3.3	44	11.0
Axinoella rudisa (P)	20	4.0	1.9	40	12.5
Ophelia fibrinolata (P)	20	4.0	1.9	40	12.5
Amphiuridae (undet.) E (E)	19	3.8	3.9	38	14.0
Nephtys picta (P)	17	3.4	4.5	34	15.0
Prionospio steenstrupi (P)	16	3.2	4.0	32	16.0
Pelecypoda (undet.) B	15	3.0	5.2	30	18.0
Magelona sp. 2aw "J" (P)	15	3.0	4.5	30	18.0
Edotia triloba (P)	15	3.0	2.8	30	18.0
Ischyrocerus anguipes (A)	14	2.8	3.8	28	20.0
Ischyrocerus (A)	13	2.6	3.6	26	21.0
Scalpellum scalpellum (C)	12	2.4	2.3	24	22.5
Nemertina (undet.) A	12	2.4	1.7	24	22.5
Lumbrineridae (undet.) A (M)	11	2.2	2.3	22	24.0
Spiophanes bombyx (P)	10	2.0	3.9	20	25.0
Paraonis gracilis (P)	8	1.6	1.7	16	27.0
Scalibregma texana (P)	8	1.6	1.5	16	27.0
Travisiopsis wigleyi (P)	8	1.6	1.9	16	27.0
Ericthonius brasiliensis (C)	7	1.4	1.1	14	31.5
Pagurus longicarpus (D)	7	1.4	1.7	14	31.5
Nicolea sp. 1 (P)	7	1.4	1.7	14	31.5
Lumbrineris latreilli (P)	7	1.4	1.1	14	31.5
Artacama (P)	7	1.4	1.5	14	31.5
Harpacticoida (undet.) (P	7	1.4	1.7	14	31.5
Brachyura (undet.) A (D)	6	1.2	1.3	12	38.5
Ampelisca vadorum (A)	6	1.2	1.8	12	38.5
Yoldia proxima (M)	6	1.2	0.8	12	38.5
Spiophanes (P)	6	1.2	1.3	12	38.5
Terebellides (P)	6	1.2	0.8	12	38.5
Glycera (P)	6	1.2	1.8	12	38.5
Lumbrineris magna (P)	6	1.2	2.2	12	38.5
Lumbrineris (P)	6	1.2	1.1	12	38.5
Onuphis (P)	5	1.0	0.7	10	45.0
Haustoriidae (undet.) (M)	5	1.0	1.7	10	45.0
Ophelina (P)	5	1.0	1.4	10	45.0
Phyllodoce (P)	5	1.0	1.4	10	45.0
Lumbrineris (P)	5	1.0	2.2	10	45.0
Pinnixa sp. B (D)	4	0.8	0.4	8	52.5
Callianassidae (undet.) (D)	4	0.8	1.1	8	52.5
Pinnixa (D)	4	0.8	0.8	8	52.5
Ampelisca (A)	4	0.8	1.6	8	52.5
Terebellidae (P)	4	0.8	1.3	8	52.5
Nereis (P)	4	0.8	1.1	8	52.5
Cirratulidae (undet.) (P)	4	0.8	1.1	8	52.5
Cirratulus (P)	4	0.8	1.3	8	52.5
Paraonidae (undet.) (P)	4	0.8	1.3	8	52.5
Spiophanes (P)	4	0.8	1.3	8	52.5
Nephtys (P)	4	0.8	1.3	8	52.5
Nephtys incisa (P)	4	0.8	1.3	8	52.5
Exogone (P)	3	0.6	1.1	6	64.5
Exogone dispar (P)	3	0.6	1.1	6	64.5
Pectinaria (P)	3	0.6	1.1	6	64.5
Ampharetidae (undet.) (P)	3	0.6	1.1	6	64.5
Tellinidae (undet.) (M)	3	0.6	1.1	6	64.5

Table 4?. (Cont.)

DS06

Species	Total Number	Number/0.1m² x̄	Number/0.1m² SD	Estimated Number/m²	Rank by Number
Hypsicomus sp. (P)	3	0.6	0.9	6	64.0
Cirratulus sp. (P)	3	0.6	1.4	6	64.0
Owenia fusiformis (P)	3	0.6	1.3	6	64.0
Onuphis eremita (P)	3	0.6	1.3	6	64.0
Arabella iricolor (P)	3	0.6	1.3	6	64.0
Odontosyllis fulgurans (P)	3	0.6	0.9	6	64.0
Mediomastus californiensis (P)	3	0.6	0.9	6	64.0
Clymenella torquata (P)	3	0.6	1.3	6	64.0
Trachypeneus constrictus (D)	2	0.4	0.9	4	81.5
Panopeus sp. (D)	2	0.4	0.9	4	81.5
Brachyura (undet.) B (D)	2	0.4	0.9	4	81.5
Calappidae (undet.) (D)	2	0.4	0.9	4	81.5
Pinnixa retinens (D)	2	0.4	0.5	4	81.5
Processa hemphilli (D)	2	0.4	0.9	4	81.5
Pseudoplatyischnopus floridanus (A)	2	0.4	0.5	4	81.5
Nemertina (undet.) B	2	0.4	0.9	4	81.5
[illegible] pyramidata (Br)	2	0.4	0.5	4	81.5
Tellina iris (M)	2	0.4	0.9	4	81.5
Turridae (undet.) A (M)	2	0.4	0.9	4	81.5
Anadara obesa (M)	2	0.4	0.5	4	81.5
Mitrella lunata (M)	2	0.4	0.5	4	81.5
Aspidosiphon spinalis (S)	2	0.4	0.5	4	81.5
Sabellaria floridensis (P)	2	0.4	0.9	4	81.5
Nereis sp. B (P)	2	0.4	0.9	4	81.5
Glycera [illegible] (P)	2	0.4	0.5	4	81.5
[illegible] dentalius (P)	2	0.4	0.9	4	81.5
Glycinde solitaria (P)	2	0.4	0.9	4	81.5
Haploscoloplos fragilis (P)	2	0.4	0.5	4	81.5
Paraprionospio pinnata (P)	2	0.4	0.9	4	81.5
Hemipodus roseus (P)	2	0.4	0.9	4	81.5
Branchiostoma caribaeum (C)	1	0.2	0.4	2	109.0
Latreutes parvulus (D)	1	0.2	0.4	2	109.0
[illegible] (D)	1	0.2	0.4	2	109.0
Heterocrypta granulata (D)	1	0.2	0.4	2	109.0
Portunidae (undet.) (D)	1	0.2	0.4	2	109.0
[illegible] sp. A (My)	1	0.2	0.4	2	109.0
Oxyurostylis smithi (C)	1	0.2	0.4	2	109.0
[illegible] (P)	1	0.2	0.4	2	109.0
[illegible] elegans (E)	1	0.2	0.4	2	109.0
[illegible]	1	0.2	0.4	2	109.0
Asteroidea (undet.) (E)	1	0.2	0.4	2	109.0
[illegible] sp. B (M)	1	0.2	0.4	2	109.0
[illegible] (undet.) (E)	1	0.2	0.4	2	109.0
[illegible] (M)	1	0.2	0.4	2	109.0
[illegible] sp. (M)	1	0.2	0.4	2	109.0
[illegible] (M)	1	0.2	0.4	2	109.0
[illegible] sp. (M)	1	0.2	0.4	2	109.0
Dentalium eboreum (M)	1	0.2	0.4	2	109.0
Anomia simplex (M)	1	0.2	0.4	2	109.0
[illegible] macerophylla (M)	1	0.2	0.4	2	109.0
[illegible] cornuta (M)	1	0.2	0.4	2	109.0
Ensis directus (M)	1	0.2	0.4	2	109.0
[illegible] atlantica (P)	1	0.2	0.4	2	109.0
[illegible] rubra (P)	1	0.2	0.4	2	109.0
[illegible] (P)	1	0.2	0.4	2	109.0
[illegible] (P)	1	0.2	0.4	2	109.0
Armandia maculata (P)	1	0.2	0.4	2	109.0
[illegible] (undet.) (P)	1	0.2	0.4	2	109.0
[illegible] (P)	1	0.2	0.4	2	109.0
[illegible] (P)	1	0.2	0.4	2	109.0
[illegible] (P)	1	0.2	0.4	2	[illegible]
[illegible] (P)	1	0.2	0.4	2	[illegible]
[illegible] (P)	1	0.2	0.4	[illegible]	[illegible]

Table [illegible]. Abundant [illegible] invertebrate species in grab collections from station DS-7. (A = Amphipoda; Br = Brachiopoda; C = Cumacea; [illegible] = Cephalochordata; Cn = Cnidaria; D = Decapoda; [illegible] = Echinodermata; [illegible]; I = Isopoda; M = Mollusca; [illegible] = [illegible]; P = Polychaeta; S = Sipunculida).

DS-7					
Species	Total Number	Number 0.1m² $\bar{X}$	Number 0.1m² SD	Estimated Number m²	Rank by Number
[illegible] (B)	337	67.4	25.8	674	1.0
[illegible] (P)	96	19.2	18.9	192	2.0
Crassinella lunulata (M)	54	10.8	15.0	108	3.0
Polycirrus eximius (P)	45	9.0	6.0	90	4.0
Prionospio cristata (P)	38	7.6	6.5	76	5.0
Lumbrineris latreilli (P)	30	6.0	3.8	60	6.0
Nereis succinea (P)	23	4.6	3.6	46	7.0
Hemipodus roseus (P)	22	4.4	5.0	44	8.0
Nematoda (undet.)	21	4.2	4.0	42	10.0
Nucula proxima (M)	21	4.2	4.4	42	10.0
Oligochaeta (undet.)	21	4.2	6.4	42	10.0
Branchiostoma caribaeum [illegible]	18	3.6	3.7	36	12.5
[illegible] sanguinea (P)	18	3.6	3.9	36	12.5
Tellina [illegible] (M)	15	3.0	3.2	30	15.0
[illegible] picta (P)	15	3.0	1.4	30	15.0
Mediomastus californiensis (P)	15	3.0	2.5	30	15.0
[illegible] (M)	14	2.8	1.3	28	17.0
Axiothella [illegible]	13	2.6	2.6	26	18.0
Batea catharinensis (A)	12	2.4	5.4	24	19.5
Spiophanes bombyx (P)	12	2.4	1.1	24	19.5
Armandia maculata (P)	11	2.2	2.8	22	21.0
Tellina texana (M)	10	2.0	0.0	20	23.0
Abra aequalis (M)	10	2.0	2.3	20	23.0
Aspidosiphon spinalis (S)	10	2.0	[illegible]	20	23.0
Pinnixa sayana (D)	8	1.6	1.1	16	25.5
Crassinella martinicensis (M)	8	1.6	1.9	16	25.5
Nemertina (undet.) (N)	7	1.4	2.1	14	28.5
Lumbrineris impatiens (P)	7	1.4	3.1	14	28.5
[illegible] (P)	7	1.4	2.6	14	28.5
Ceratonereis irritabilis (P)	7	1.4	3.1	14	28.5
[illegible] pyramidata (Br)	6	1.2	0.8	12	32.0
Pseudeurythoe ambigua (P)	6	1.2	1.1	12	32.0
Onuphis eremita (P)	6	1.2	1.3	12	32.0
Lembos unicornis (A)	5	1.0	1.4	10	35.5
Natica pusilla (M)	5	1.0	1.0	10	35.5
[illegible] arenae (P)	5	1.0	1.7	10	35.5
[illegible] (P)	5	1.0	1.7	10	35.5
[illegible] (D)	4	0.8	1.3	8	41.5
[illegible]	4	0.8	1.8	8	41.5
[illegible] (undet.) (M)	4	0.8	1.3	8	41.5
[illegible] (M)	4	0.8	1.3	8	41.5
[illegible] (undet.)	4	0.8	0.8	8	41.5
[illegible] (M)	4	0.8	0.4	8	41.5
[illegible] (S)	4	0.8	0.8	8	41.5
[illegible] (P)	4	0.8	1.3	8	41.5
[illegible] (M)	3	0.6	1.3	6	[illegible]
[illegible] (A)	[illegible]	[illegible]	0.5	6	[illegible]
[illegible] (M)	[illegible]	0.6	[illegible]	6	[illegible]
[illegible] (P)	[illegible]	0.6	0.4	6	48.5
[illegible] cristata	[illegible]	0.6	[illegible]	6	[illegible]
[illegible]	3	0.6	1.3	6	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	Total Number	Number /dm²		Estimated Number of	Rank in Number
		X	SD		
[illegible]	2	0.4	0.5	4	62.5
[illegible]	2	0.4	0.5	4	62.5
Nephtys ciliata (M)	2	0.4	0.5	4	62.5
Nereis zonata (Malmgren) (M)	2	0.4	0.9	4	62.5
Nereis [illegible] (M)	2	0.4	0.9	4	62.5
[illegible] (Kinberg) (P)	2	0.4	0.5	4	62.5
Owenia fusiformis (P)	2	0.4	0.9	4	62.5
Owenia [illegible] (P)	2	0.4	0.5	4	62.5
Glycera tridactyla (P)	2	0.4	0.5	4	62.5
Magelona rosea (P)	2	0.4	0.5	4	62.5
Brachyura (undet.) B (D)	1	0.2	0.4	2	95.0
Eurystylus oculatus (D)	1	0.2	0.4	2	95.0
[illegible] (undet.) (D)	1	0.2	0.4	2	95.0
Heteromysis granulata (D)	1	0.2	0.4	2	95.0
[illegible] atlantica (D)	1	0.2	0.4	2	95.0
Callisyllis sp. A (P)	1	0.2	0.4	2	95.0
Exogone (undet.) B	1	0.2	0.4	2	95.0
Exogone (undet.) A	1	0.2	0.4	2	95.0
Amphilochus merrilli (A	1	0.2	0.4	2	95.0
Nicippe serrata (A)	1	0.2	0.4	2	95.0
Platyischnopus barnardi (E)	1	0.2	0.4	2	95.0
Scrobicularia (undet.) (Cn)	1	0.2	0.4	2	95.0
Spio [illegible]idea (undet.) B (E)	1	0.2	0.4	2	95.0
[illegible] thorsteini (undet.) A (E)	1	0.2	0.4	2	95.0
[illegible] thorsteinidea (undet.) B (E)	1	0.2	0.4	2	95.0
Tellina sp. D (M)	1	0.2	0.4	2	95.0
Nuculana sp. B (M)	1	0.2	0.4	2	95.0
Turbonilla sp. D (M)	1	0.2	0.4	2	95.0
Crisilla orientalis (M)	1	0.2	0.4	2	95.0
Solenidae (undet.) (M)	1	0.2	0.4	2	95.0
Scoloplos multistriatum (M)	1	0.2	0.4	2	95.0
Nuculana solida (M)	1	0.2	0.4	2	95.0
Thelepus pergulai (M)	1	0.2	0.4	2	95.0
Turbonilla (undet.) C (M)	1	0.2	0.4	2	95.0
Polycirridae (undet.) A (M)	1	0.2	0.4	2	95.0
Corbula barrattiana (M)	1	0.2	0.4	2	95.0
Parastarte triquetra (M)	1	0.2	0.4	2	95.0
Callianassa sp. (M)	1	0.2	0.4	2	95.0
Abra nata (M)	1	0.2	0.4	2	95.0
Nuculana [illegible] (M)	1	0.2	0.4	2	95.0
Capitella capitata (P)	1	0.2	0.4	2	95.0
Nemertea (undet.) (P)	1	0.2	0.4	2	95.0
Lumbrineris tenuis (P)	1	0.2	0.4	2	95.0
Ampharete (undet.) A (P)	1	0.2	0.4	2	95.0
Ampharete sp. A (P)	1	0.2	0.4	2	95.0
Lumbrineris [illegible] (P)	1	0.2	0.4	2	95.0
Aricidea [illegible] (P)	1	0.2	0.4	2	95.0
Nephtys [illegible] (P)	1	0.2	0.4	2	95.0
Spiophanes bombyx (P)	1	0.2	0.4	2	95.0
Nephtys caeca (Fabricius) (P)	1	0.2	0.4	2	95.0
Glycera [illegible] (P)	1	0.2	0.4	2	95.0
Aphelochaeta [illegible] (P)	1	0.2	0.4	2	95.0
Tharyx [illegible] (P)	1	0.2	0.4	2	95.0
[illegible] sp. A (P)	1	0.2	0.4	2	95.0
Diplocirrus glaucus (P)	1	0.2	0.4	2	95.0
Mediomastus [illegible] (P)	1	0.2	0.4	2	95.0
[illegible] [illegible] (P)	1	0.2	0.4	2	95.0

Table [illegible]. Abundance of macroinvertebrate species in grab collections from station TS38 [illegible]; A = [illegible]; [illegible] = [illegible]; D = Decapoda; E = [illegible]; [illegible]; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipunculida.

TS38

Species	Total Number	Number 0.1m² $\bar{X}$	Number 0.1m² SD	Estimated Number m²	Rank by Number
[illegible] (P)	101	20.2	22.1	202	1.0
[illegible] unident.	63	12.6	17.2	126	2.0
[illegible] (M)	37	7.4	4.1	74	3.0
[illegible] (P)	35	7.0	6.2	70	4.0
[illegible]	27	5.4	5.2	54	5.0
[illegible] (M)	25	5.0	6.4	50	6.5
[illegible] (P)	25	5.0	3.7	50	6.5
[illegible] (A)	16	3.2	1.3	32	8.0
Nemertina unident. [illegible]	15	3.0	1.2	30	9.0
[illegible] (P)	14	2.8	3.0	28	10.0
[illegible] (P)	13	2.6	2.5	26	11.0
[illegible] (M)	10	2.0	3.1	20	12.0
[illegible]	8	1.6	0.9	16	13.5
[illegible] (My)	8	1.6	3.0	16	13.5
[illegible] (A)	7	1.4	1.1	14	18.5
[illegible] (E)	7	1.4	0.9	14	18.5
[illegible] sp. A (E)	7	1.4	2.2	14	18.5
[illegible] (M)	7	1.4	1.1	14	18.5
[illegible] (P)	7	1.4	2.6	14	18.5
[illegible] (P)	7	1.4	2.1	14	18.5
[illegible] (P)	7	1.4	1.9	14	18.5
[illegible] (P)	7	1.4	0.4	14	18.5
[illegible]	6	1.2	1.1	12	24.5
[illegible] unident. (E)	6	1.2	2.2	12	24.5
[illegible] (E)	6	1.2	1.5	12	24.5
[illegible] (P)	6	1.2	1.6	12	24.5
[illegible] (D)	5	1.0	1.0	10	29.5
[illegible] (S)	5	1.0	0.7	10	29.5
[illegible] (P)	5	1.0	0.7	10	29.5
[illegible] (P)	5	1.0	1.0	10	29.5
[illegible]	5	1.0	0.7	10	29.5
[illegible] (P)	5	1.0	1.4	10	29.5
[illegible]	4	0.8	1.3	8	37.5
[illegible]	4	0.8	1.1	8	37.5
[illegible] (P)	4	0.8	1.3	8	37.5
[illegible] unident. [illegible]	4	0.8	1.3	8	37.5
[illegible] (M)	4	0.8	1.1	8	37.5
[illegible] (M)	4	0.8	[illegible]	8	37.5
[illegible] unident. [illegible]	4	0.8	0.8	8	37.5
[illegible] (M)	4	0.8	[illegible]	8	37.5
[illegible] (P)	4	0.8	[illegible]	8	37.5
[illegible] (P)	4	0.8	1.1	8	37.5
[illegible]	3	0.6	0.7	6	47.0
[illegible] (P)	3	0.6	[illegible]	6	47.0
[illegible]	3	0.6	0.9	6	47.0
[illegible]	3	0.6	[illegible]	6	47.0
[illegible]	3	0.6	0.5	6	47.0
[illegible] unident. [illegible]	3	0.6	0.4	6	47.0
[illegible] unident. (A)	3	[illegible]	[illegible]	6	47.0
[illegible]	3	0.6	[illegible]	6	47.0
[illegible] (P)	3	0.6	[illegible]	6	47.0
[illegible] (A)	2	0.4	[illegible]	4	[illegible]
[illegible]	2	0.4	[illegible]	4	[illegible]
[illegible]	2	[illegible]	[illegible]	4	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (M)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

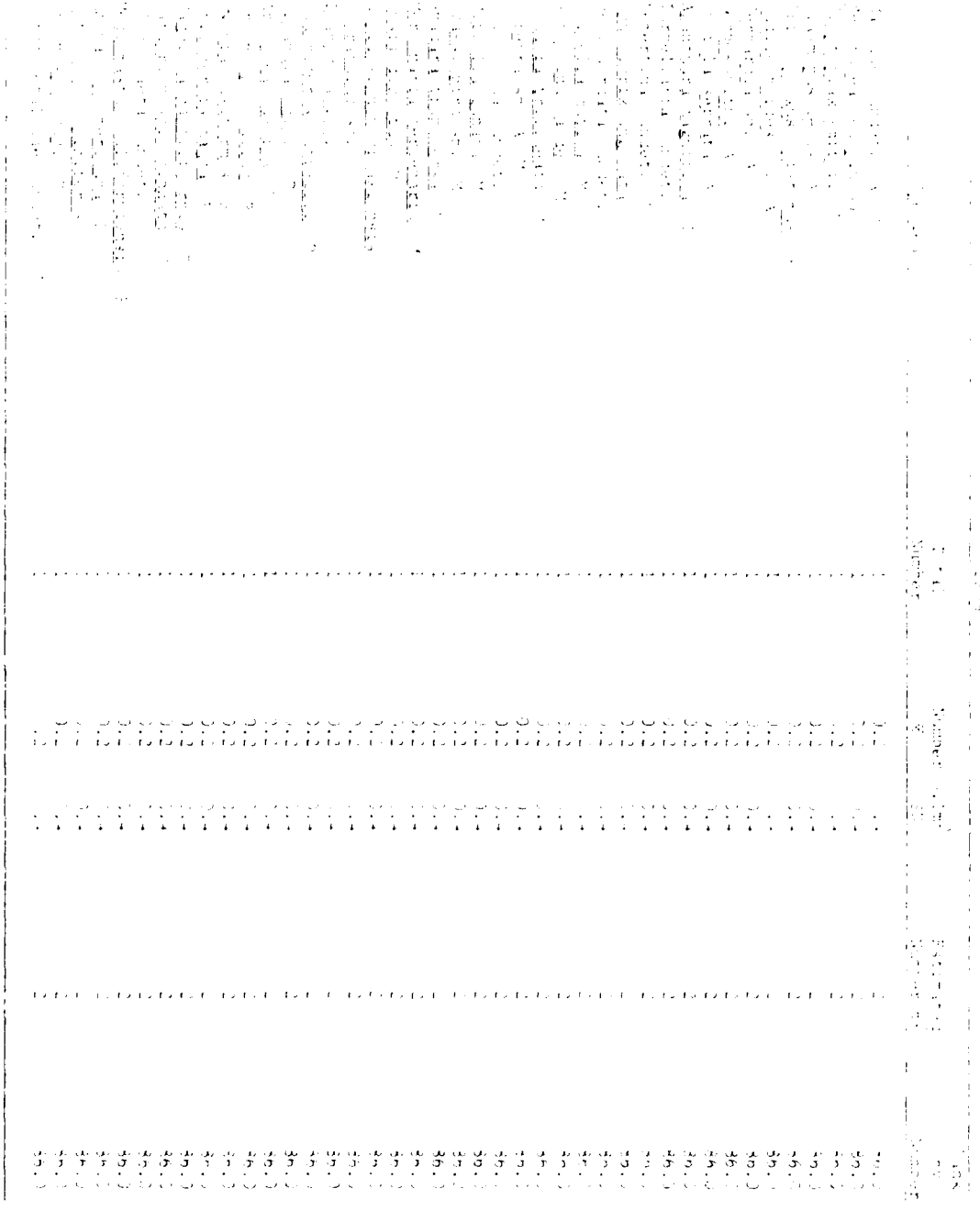

Table 32. Abundance of macroinvertebrate species in grab collections from station DS09. (A = Amphipoda; C = Cumacea; Ce = Cephalochordata; Cn = Cnidaria; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipunculida; T = Tanaidacea).

	DS09				
Species	Total Number	Number/0.1 m^2 $\bar{X}$	SD	Estimated Number/m^2	Rank by Number
Branchiostoma caribaeum (Ce)	67	13.4	10.0	134	1.0
Protohaustorius sp. nr. wellhmannae (A)	29	5.8	9.0	58	2.0
Tellina proxima (M)	25	5.0	4.4	50	3.0
Anapnis aegrita (P)	23	4.6	2.6	46	4.0
Glycera oxycephala (P)	19	3.8	3.1	38	5.0
Acanthohaustorius millsi (A)	18	3.6	4.0	36	7.5
Aspidosiphon spinalis (S)	18	3.6	2.6	36	7.5
Nephtys picta (P)	18	3.6	2.1	36	7.5
Prionospio cristata (P)	18	3.6	3.4	36	7.5
Acanthohaustorius sp. (A)	15	3.0	2.4	30	10.0
Mellita quinquiesperforata (E)	12	2.4	2.8	24	11.5
Ervilia concentrica (M)	12	2.4	1.5	24	11.5
Nematoda (undet.)	10	2.0	1.4	20	13.5
Lepidasthenia longicirrata (P)	10	2.0	1.6	20	13.5
Apanthura magnifica (I)	8	1.6	0.9	16	15.5
Crassinella martinicensis (M)	8	1.6	2.5	16	15.5
Oligochaeta (undet.)	7	1.4	1.7	14	17.0
Trichophoxus floridanus (A)	6	1.2	0.4	12	20.0
Strigilla mirabilis (M)	6	1.2	1.6	12	20.0
Prionospio filiax (P)	6	1.2	2.2	12	20.0
Dispatra cuprea (P)	6	1.2	2.2	12	20.0
Hemipodus roseus (P)	6	1.2	2.2	12	20.0
Oxyurostylis smithi (C)	5	1.0	1.2	10	24.0
Ancinus depressus (I)	5	1.0	1.0	10	24.0
Nemertina (undet.) A	5	1.0	1.2	10	24.0
Nemertina (undet.) B	4	0.8	0.8	8	27.5
Discoporella umbellata (Ec)	4	0.8	1.8	8	27.5
Abra aequalis (M)	4	0.8	1.1	8	27.5
Spio pettibaneae (P)	4	0.8	1.8	8	27.5
Trichophoxus epistomus (A)	3	0.6	1.3	6	32.5
Apanthura burbanki (I)	3	0.6	1.3	6	32.5
Pseudoplatyischnopus floridanus (A)	3	0.6	0.9	6	32.5
Semele nuculoides (M)	3	0.6	1.3	6	32.5
Terebellidae (undet.) B (P)	3	0.6	0.9	6	32.5
Spiochaetopterus bombyx (P)	3	0.6	0.5	6	32.5
Diastylis longicarpus (C)	2	0.4	0.9	4	41.0
Pinnixa sayana (D)	2	0.4	0.5	4	41.0
Amphipoda (undet.) A	2	0.4	0.5	4	41.0
Listriolobus sp. A (My)	2	0.4	0.5	4	41.0
Nephtys incisa (P)	2	0.4	0.5	4	41.0
Lepidasthenia sp. (P)	2	0.4	0.9	4	41.0
Solenella solidissima (M)	2	0.4	0.5	4	41.0
Crassinella lunulata (M)	2	0.4	0.9	4	41.0
Cumella sp. A (C)	2	0.4	0.9	4	41.0
Pinnixa sp. A (D)	2	0.4	0.9	4	41.0
Nephtys bucera (P)	2	0.4	0.9	4	41.0
Emerita talpoida (D)	1	0.2	0.4	2	51.0
Pinnixa sp. B (D)	1	0.2	0.4	2	51.0
Maera caroliniana (A)	1	0.2	0.4	2	51.0
Mellita nitida (E)	1	0.2	0.4	2	51.0
Gammaropsis smithi (A)	1	0.2	0.4	2	51.0
Piromis eruptens (A)	1	0.2	0.4	2	51.0
Nemertina (undet.) (Nm)	1	0.2	0.4	2	51.0
Turbellaria (undet.)	1	0.2	0.4	2	51.0
Thalassema mellita (P)	1	0.2	0.4	2	51.0
Leitoscoloplos sp. A (P)	1	0.2	0.4	2	51.0
Natica pusilla (M)	1	0.2	0.4	2	51.0
Nephtys (undet.) (P)	1	0.2	0.4	2	51.0
Tellina parilis (M)	1	0.2	0.4	2	51.0
Mitrella lunata (M)	1	0.2	0.4	2	51.0
Magelona sp. (P)	1	0.2	0.4	2	51.0

Table 22 (Cont.)

Species	Total Number	Number m⁻² R	SE	Estimated Number m⁻²	Rank by Number
Spiophanes bombyx (P)	1	0.2	0.4	2	61.0
Cumbraneris tietzeli (P)	1	0.2	0.4	2	61.0
Ancistrosyllis jonesi (P)	1	0.2	0.4	2	61.0
Nephtys incisa (P)	1	0.2	0.4	2	61.0
Notomastus hemipodus (P)	1	0.2	0.4	2	61.0
Polydora sp. A (P)	1	0.2	0.4	2	61.0
Polydora sp. B (P)	1	0.2	0.4	2	61.0
Nemertina (unid.) (P)	1	0.2	0.4	2	61.0
Synelmis albini (P)	1	0.2	0.4	2	61.0
Prionospio dirrhabdus (P)	1	0.2	0.4	2	61.0
Armandia maculata (P)	1	0.2	0.4	2	61.0
Goniadella gracilis (P)	1	0.2	0.4	2	61.0
Mediomastus ambiseta (P)	1	0.2	0.4	2	61.0
Orbinia riseri (P)	1	0.2	0.4	2	61.0

Table 42. Abundance of major invertebrate species in grab collections from station DS10. (A = Amphipoda; C = Cumacea; Cc = Cephalochordata; E = Echinodermata; Ec = Enteropneusta; I = Isopoda; M = Mollusca; P = Polychaeta).

DS10

Species	Total Number	Number $\cdot 0.1m^2$ $\bar{X}$	SD	Estimated Number m^2	Rank by Number
Spiophanes bombyx (P)	93	12.8	4.2	126	1.0
Tellina proxima (M)	40	5.1	1.2	80	2.0
Mellita quinquiesperforata (E)	27	3.4	3.2	54	3.0
Protohaustorius sp. nov. (A)	15	3.0	2.9	30	4.0
Trichophoxus epistomus (A)	13	2.0	1.8	26	5.0
Nemertina (unidet.) (R)	4	1.8	1.5	18	6.0
Ilyocera exopthala (P)	7	1.4	1.1	14	7.5
Acanthohaustorius sp. (A)	7	1.4	1.7	14	7.5
Nephtys picta (P)	6	1.2	0.8	12	9.0
Tellina texana (M)	5	1.0	2.0	10	10.0
Spiophanes bombyx (P)	4	0.5	0.5	8	12.5
Pseudolatrichonotus floridanus (A)	4	0.8	0.8	8	12.5
Bathyporeia pilosa (A)	4	0.8	1.6	8	12.5
Tellina sp. (M)	4	0.8	1.6	8	12.5
Ampelisca vadorum (A)	3	0.6	1.2	6	16.5
Olivella mutica (M)	3	0.6	1.2	6	16.5
Nematoda (undet.)	2	0.4	0.5	4	17.5
Donax variabilis (M)	1	0.2	0.4	2	24.5
Crassinella martinicensis (M)	1	0.2	0.4	2	24.5
Semele proficua (M)	1	0.2	0.4	2	24.5
Diopatra cuprea (P)	1	0.2	0.4	2	24.5
Oxyurostylis smithi (C)	1	0.2	0.4	2	24.5
Anchinus depressus (I)	1	0.2	0.4	2	24.5
Prionospio (undet.)	1	0.2	0.4	2	24.5
Amphipholis sp. A (E)	1	0.2	0.4	2	24.5
Nemertina (undet. B	1	0.2	0.4	2	24.5
Diopatra cuprea (P)	1	0.2	0.4	2	24.5
Pinnixa sp. (P)	1	0.2	0.4	2	24.5
Branchiostoma caribaeum (Cc)	1	0.2	0.4	2	24.5
Nuculana acuta (M)	1	0.2	0.4	2	24.5
Lysianidae (undet., A (P)	1	0.2	0.4	2	24.5

Table 33. Abundance of macroinvertebrate species in grab collections from station DS11. (A = Amphipoda; C = Cumacea; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; P = Polychaeta).

DS11

Species	Total Number	Number/0.1m² x̄	Number/0.1m² SD	Estimated Number/m²	Rank by Number
Strigilla pirabilis (M)	56	11.2	6.5	112	1.0
Pisoporella ambulata (P)	44	8.8	5.4	88	2.0
Protohaustorius sp. deichmannae (A)	33	6.6	5.6	66	3.0
Tellina texana (M)	15	3.0	2.0	30	4.0
Spiophanes bombyx (P)	14	2.8	2.2	28	5.5
Nephtys picta (P)	14	2.8	2.8	28	5.5
Nemertina (undet.) A	10	2.0	1.0	20	7.0
Trichophoxus epistomus (A)	7	1.4	1.9	14	8.0
Inuphis arenita (P)	6	1.2	0.8	12	9.0
Xenanthringmus sp. A. (I)	5	1.0	1.0	10	10.0
Lucinidae (undet.) A (M)	4	0.8	0.8	8	12.0
Nemera exchernala (P)	4	0.8	1.3	8	12.0
Magelona papillicornis (P)	4	0.8	0.8	8	12.0
Tellina sp. (M)	3	0.6	0.9	6	14.5
Terebra dislocata (M)	3	0.6	0.5	6	14.5
Trichybdenus constrictus (P)	2	0.4	0.5	4	18.0
Acanthohaustorius sp. (A)	2	0.4	0.5	4	18.0
Lattrodectus sp. A (M)	2	0.4	0.5	4	18.0
Ixyurostylis smithi (C)	2	0.4	0.9	4	18.0
Arthina sp. A	2	0.4	0.5	4	18.0
Brachyura (undet.) A (D)	1	0.2	0.4	2	30.5
Brachyura (undet.) B (D)	1	0.2	0.4	2	30.5
Digerus longidigitus (P)	1	0.2	0.4	2	30.5
Abrunea parietti (P)	1	0.2	0.4	2	30.5
Loxoidona websteri (D)	1	0.2	0.4	2	30.5
Mysidacea (undet.) A	1	0.2	0.4	2	30.5
Thiridotea stenops (I)	1	0.2	0.4	2	30.5
Pseudopolydora floridanus (A)	1	0.2	0.4	2	30.5
Turbellaria (undet.)	1	0.2	0.4	2	30.5
Mollita quinquesperforata (E)	1	0.2	0.4	2	30.5
Cerapodella sp. B (M)	1	0.2	0.4	2	30.5
Brevilia concentrica (M)	1	0.2	0.4	2	30.5
Terebidae (undet.) A (M)	1	0.2	0.4	2	30.5
Lumbrineris latreilli (P)	1	0.2	0.4	2	30.5	
Armandia agilis (P)	1	0.2	0.4	2	30.5
Scoloplos fragilis (P)	1	0.2	0.4	2	30.5
Owenia fusiformis (P)	1	0.2	0.4	2	30.5
Armandia maculata (P)	1	0.2	0.4	2	30.5
Prionospio sp. A (P)	1	0.2	0.4	2	30.5

Table [illegible]. Abundance of macroinvertebrate species in grab collections from station DS12. A = Amphipoda; C = Cumacea; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; M = Mollusca; My = Mysidacea; S = Sipunculida; P = Polychaeta, Ph = Phoronida.

DS12					
Species	Total Number	Number/0.1m² $\overline{X}$	SD	Estimated Number m⁻²	Rank by Number
Protohaustorius nr. deichmannae (A)	97	19.4	13.4	194	1.0
Mellita quinquiesperforata (E)	47	9.4	3.5	94	2.0
Pinnixa [illegible] (D)	29	5.8	9.1	58	3.0
Tellina texana (M)	23	4.6	1.9	46	4.0
Spiophanes bombyx (P)	21	4.2	3.6	42	5.0
Discoporella umbellata (Ec)	17	3.4	2.4	34	6.5
Onuphis eremita (P)	17	3.4	1.3	34	6.5
Strigilla mirabilis (M)	12	2.4	2.5	24	8.0
Pseudoplatyischnopus floridanus (A)	10	2.0	1.6	20	9.5
Nephtys picta (P)	10	2.0	1.6	20	9.5
Trichophoxus epistomus (A)	8	1.6	0.9	16	11.0
[illegible] (M)	7	1.4	1.1	14	12.0
Trachypenaeus constrictus (D)	6	1.2	1.1	12	15.0
[illegible] (D)	6	1.2	0.8	12	15.0
Nemertina (undet.) A	6	1.2	1.1	12	15.0
Magelona papillicornis (P)	6	1.2	1.3	12	15.0
Prionospio dayi (P)	6	1.2	1.3	12	15.0
Magelona sp. (Day '73) (P)	5	1.0	1.2	10	19.0
Armandia maculata (P)	5	1.0	0.7	10	19.0
Ophiophragmus sp. A (E)	5	1.0	1.2	10	19.0
Oxyurostylis smithi (C)	4	0.8	0.8	8	22.0
[illegible] (P)	4	0.8	1.3	8	22.0
Polydora sp. B (P)	4	0.8	0.8	8	22.0
[illegible] americanum (A)	3	0.6	0.9	6	25.5
[illegible] sp. A (My)	3	0.6	0.5	6	25.5
Natica pusilla (M)	3	0.6	0.5	6	25.5
[illegible] bidentata (M)	3	0.6	1.3	6	25.5
[illegible] serratorbita (D)	2	0.4	0.5	4	36.0
Brachyura (undet. A) (D)	2	0.4	0.5	4	36.0
Brachyura (undet. B) (D)	2	0.4	0.5	4	36.0
Albunea paretii (D)	2	0.4	0.5	4	36.0
Ostracoda (undet.)	2	0.4	0.5	4	36.0
[illegible] (A)	2	0.4	0.9	4	36.0
Nemertina (undet.) B	2	0.4	0.5	4	36.0
Nematoda (undet.)	2	0.4	0.5	4	36.0
Tellina iris (M)	2	0.4	0.5	4	36.0
[illegible] (M)	2	0.4	0.5	4	36.0
[illegible] (S)	2	0.4	0.5	4	36.0
[illegible] (S)	2	0.4	0.5	4	36.0
[illegible] (P)	2	0.4	0.5	4	36.0
[illegible] (P)	2	0.4	0.5	4	36.0
[illegible] (P)	2	0.4	0.9	4	36.0
Owenia fusiformis (P)	2	0.4	0.5	4	36.0
[illegible] cristata (P)	2	0.4	0.5	4	36.0
Acanthohaustorius sp. (A)	1	0.2	0.4	2	54.0
[illegible] (A)	1	0.2	0.4	2	54.0
[illegible] sp. A (P)	1	0.2	0.4	2	54.0
[illegible] (M)	1	0.2	0.4	2	54.0
[illegible] (undet.) (M)	1	0.2	0.4	2	54.0
[illegible] (M)	1	0.2	0.4	2	54.0
[illegible] (M)	1	0.2	0.4	2	54.0
[illegible] (undet.) (M)	1	0.2	0.4	2	54.0
[illegible] (M)	1	0.2	0.4	2	54.0
[illegible] (M)	1	0.2	0.4	2	54.0
[illegible] (M)	1	0.2	0.4	2	54.0
[illegible] (M)	1	0.2	0.4	2	54.0
[illegible] (P)	1	0.2	0.4	2	54.0
[illegible] (P)	1	0.2	0.4	2	54.0
[illegible] (P)	1	0.2	0.4	2	54.0
[illegible] (A)	1	0.2	0.4	2	54.0
[illegible] (P)	1	0.2	0.4	2	54.0
[illegible]	1	0.2	0.4	2	54.0
[illegible] (P)	1	0.2	0.4	2	54.0

Table 55. Abundance [illegible]
Br = Brachiopoda; [illegible]
[illegible] M = Mollusca, [illegible]

[illegible]	Total Number	Number [illegible] $\bar{x}$	SD	Estimated Number m⁻²	Rank by Number
[illegible] undet.	145	29.0	16.3	290	1.0
[illegible]	112	22.4	14.4	224	2.0
[illegible]	96	19.2	16.0	192	3.0
[illegible]	93	18.6	17.8	186	4.0
[illegible]	86	17.2	18.1	172	5.0
[illegible] (P)	78	15.6	17.0	156	6.0
[illegible] sanguinea (P)	57	11.4	8.4	114	7.0
Nereis [illegible] (P)	54	10.8	14.0	108	8.0
Crassinella lunulata (M)	51	10.2	9.2	102	9.0
[illegible]	47	9.4	7.6	94	10.5
Prionospio cristata (P)	47	9.4	12.0	94	10.5
[illegible]	46	9.2	7.0	92	12.0
Magelona sp. [illegible] (P)	46	9.2	12.2	92	12.0
Sabellaria [illegible] (P)	41	8.2	[illegible]	82	14.0
[illegible] (P)	[illegible]	[illegible]	5.3	60	15.0
[illegible] (P)	29	5.8	[illegible]	58	16.5
[illegible] (P)	29	5.8	6.2	58	16.5
[illegible]	26	5.2	6.6	52	18.5
[illegible] undet. (A) [illegible]	26	5.2	5.3	52	18.5
[illegible] umbellata (Po)	22	4.4	2.5	44	21.5
[illegible] (P)	22	4.4	6.7	44	21.5
[illegible] cirrata (P)	22	4.4	6.8	44	21.5
[illegible] (P)	22	4.4	4.2	44	21.5
[illegible] (A)	20	4.0	7.4	40	25.0
[illegible] (P)	20	4.0	5.8	40	25.0
[illegible] (P)	20	4.0	[illegible]	40	25.0
Nemertina undet. [illegible]	19	3.8	1.6	38	27.5
[illegible] undet. [illegible]	19	3.8	[illegible]	38	27.5
[illegible] (P)	18	3.6	3.4	36	29.0
[illegible]	17	3.4	2.9	34	30.5
[illegible] (P)	17	3.4	3.9	34	30.5
[illegible] (A)	16	3.2	2.4	32	32.5
[illegible]	16	3.2	2.9	32	32.5
[illegible]	15	3.0	3.5	30	34.0
[illegible] (P)	14	2.8	[illegible]	28	36.0
[illegible] (P)	14	2.8	[illegible]	28	36.0
[illegible] (P)	14	[illegible]	2.2	28	36.0
[illegible]	13	[illegible]	[illegible]	26	39.5
[illegible]	13	[illegible]	[illegible]	26	39.5
[illegible]	13	2.6	[illegible]	26	39.5
[illegible]	13	2.6	[illegible]	26	39.5
[illegible]	12	2.4	[illegible]	[illegible]	[illegible]
[illegible]	11	2.2	[illegible]	22	43.5
[illegible] undet. (P)	11	2.2	2.5	22	43.5
[illegible] (P)	10	[illegible]	[illegible]	20	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	20	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	46.0
[illegible] undet.	[illegible]	1.8	2.2	18	50.0
[illegible] (A)	[illegible]	1.8	[illegible]	18	50.0
[illegible] undet.	[illegible]	1.8	[illegible]	18	50.0
[illegible]	[illegible]	1.8	[illegible]	18	50.0
[illegible] undet.	[illegible]	[illegible]	[illegible]	[illegible]	50.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	54.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	54.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	54.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	54.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table [illegible] (cont.)

Species	Total Number	Number 0.1m² $\bar{x}$	Number 0.1m² SD	Estimated Number m²	Rank by Number
[illegible] (A)	6	1.2	1.?	12	64.0
[illegible] (?)	6	1.2	0.8	12	64.0
[illegible] simplex (?)	6	1.2	1.?	12	64.0
Aricidea [illegible] (P)	6	1.2	1.3	12	64.0
[illegible] (P)	6	1.2	1.3	12	64.0
[illegible] sp. B (?)	6	1.2	2.2	12	64.0
[illegible] (?)	6	1.2	1.6	12	64.0
Pectinaria gouldii (P)	6	1.2	1.5	12	64.0
Aricidea sp. A (P)	6	1.2	1.1	12	64.0
[illegible] varians (D)	5	1.0	1.0	10	71.5
[illegible] sp. A	5	1.0	2.2	10	71.5
[illegible] (undet.) B (?)	5	1.0	1.2	10	71.5
[illegible] (M)	5	1.0	1.4	10	71.5
Aspidosiphon spiralis (S)	5	1.0	1.0	10	71.5
[illegible] magna (P)	5	1.0	1.7	10	71.5
[illegible] constrictus (?)	4	1.?	1.2	8	78.0
[illegible] sp. A (?)	4	0.8	0.8	8	78.0
[illegible] (undet.) B (?)	4	0.8	1.1	8	78.0
[illegible] sp. (?)	4	0.8	0.8	8	78.0
[illegible] sp. (?)	4	0.8	1.3	8	78.0
[illegible] sublevis (D)	4	0.8	1.3	8	78.0
Magelona rosea (P)	4	0.8	0.8	8	78.0
Branchiostoma caribaeum (C)	3	0.6	0.9	6	86.5
Brachyura (undet.) A (D)	3	0.6	0.5	6	86.5
[illegible] granulata (D)	3	0.6	0.9	6	86.5
[illegible] levis (A)	3	0.6	0.9	6	86.5
[illegible] epistomus (A)	3	0.6	1.3	6	86.5
Ostracoda (undet.)	3	0.6	0.5	6	86.5
[illegible] (Ec)	3	0.6	1.3	6	86.5
Natica pusilla (M)	3	0.6	0.5	6	86.5
Loimia medusa (P)	3	0.6	0.5	6	86.5
Arabella iricolor (P)	3	0.6	0.5	6	86.5
Brachyura (undet.) B (D)	2	0.4	0.5	4	106.0
Calappidae (undet.) (D)	2	0.4	0.9	4	106.0
[illegible] sp. (D)	2	0.4	0.9	4	106.0
[illegible] williamsi (A)	2	0.4	0.9	4	106.0
[illegible] (undet.) [illegible] (E)	2	0.4	0.5	4	106.0
[illegible] (undet.) [illegible] (E)	2	0.4	0.5	4	106.0
[illegible] mirabilis (M)	2	0.4	0.5	4	106.0
[illegible] (undet.) (?)	2	0.4	0.9	4	106.0
[illegible] lateralis (M)	2	0.4	[illegible]	4	106.0
[illegible] (M)	2	0.4	0.9	4	106.0
[illegible] proxima (?)	2	0.4	[illegible]	4	106.0
Anadara transversa (M)	2	0.4	0.5	4	106.0
Ensis directus (M)	2	0.4	0.5	4	106.0
Abra aequalis (M)	2	0.4	0.5	4	106.0
Aspidosiphon [illegible] (S)	2	0.4	[illegible]	4	106.0
[illegible] (undet.)	2	0.4	[illegible]	4	106.0
[illegible] sp. [illegible] (P)	2	0.4	[illegible]	4	106.0
[illegible] (P)	2	0.4	[illegible]	4	106.0
[illegible] rubra (P)	2	0.4	[illegible]	4	106.0
[illegible] (P)	2	0.4	[illegible]	4	106.0
Nephtys incisa (P)	2	0.4	[illegible]	4	106.0
Notomastus [illegible] (P)	2	0.4	[illegible]	4	106.0
[illegible] cornuta (P)	2	0.4	[illegible]	4	106.0
Armandia maculata (P)	2	0.4	[illegible]	4	106.0
[illegible] roseus (?)	2	0.4	[illegible]	4	106.0
[illegible] americana	2	0.4	[illegible]	4	106.0
[illegible]	2	0.4	[illegible]	4	106.0

Table 35. (Cont.)

DS13

Species	Total Number	Number/m² $\bar{X}$	SD	Estimated Number **	Rank by Number
Prionospio lawi (P)	2	0.4	1.5	4	106.0
Scoloplos acmeceps rudolphi (P)	2	0.4	1.5	4	106.0
Aligeus normanni (D)	1	0.2	0.4	2	144.5
Astrotes parvulus (D)	1	0.2	0.4	2	144.5
Euceramus praelongus (D)	1	0.2	0.4	2	144.5
Brachyura (undet.) (D)	1	0.2	0.4	2	144.5
Portunidae (undet.) (D)	1	0.2	0.4	2	144.5
Processa hemphilli (D)	1	0.2	0.4	2	144.5
Rathyporeia parkeri (A)	1	0.2	0.4	2	144.5
Lembos unicornis (A)	1	0.2	0.4	2	144.5
Rudilemboides sp. (A)	1	0.2	0.4	2	144.5
Liljeborgia sp. (A)	1	0.2	0.4	2	144.5
Lysianopsis alba (A)	1	0.2	0.4	2	144.5
Mysidacea (undet.) (My)	1	0.2	0.4	2	144.5
Mysidopsis bigelowi (My)	1	0.2	0.4	2	144.5
Cumacea (undet.)	1	0.2	0.4	2	144.5
Actiniaria (undet.) (An)	1	0.2	0.4	2	144.5
Nemertina (undet.) B	1	0.2	0.4	2	144.5
Spiochaetopterus oculatus (P)	1	0.2	0.4	2	144.5
Arbacia punctulata (E)	1	0.2	0.4	2	144.5
Turritellidae (undet.) (M)	1	0.2	0.4	2	144.5
Corbula barrattiana (M)	1	0.2	0.4	2	144.5
Pelecypoda (undet.) C	1	0.2	0.4	2	144.5
Anachis avara (M)	1	0.2	0.4	2	144.5
Cirratulid sp. E (P)	1	0.2	0.4	2	144.5
Cirratulid sp. F (P)	1	0.2	0.4	2	144.5
Pelecypoda (undet.) K	1	0.2	0.4	2	144.5
Pelecypoda (undet.)	1	0.2	0.4	2	144.5
Nemertina spilina (M)	1	0.2	0.4	2	144.5
Eulalia macroceros (P)	1	0.2	0.4	2	144.5
Serpulus vermicularis granulosa (P)	1	0.2	0.4	2	144.5
Magelonna sp. B (P)	1	0.2	0.4	2	144.5
Marenzelleria sp. B (var.) (P)	1	0.2	0.4	2	144.5
Terebellidae sp. (P)	1	0.2	0.4	2	144.5
Pectinaria belgica pepetzteini (P)	1	0.2	0.4	2	144.5
Spiophanes bombyx (P)	1	0.2	0.4	2	144.5
Nassa trivittata (M)	1	0.2	0.4	2	144.5
Mediomastus californiensis (P)	1	0.2	0.4	2	144.5
Tellina agilis (M)	1	0.2	0.4	2	144.5
Nephtys picta (P)	1	0.2	0.4	2	144.5
Ampharete arctica platyrhynchus (P)	1	0.2	0.4	2	144.5
Nuculid (undet.) (M)	1	0.2	0.4	2	144.5
Phoxocephalid (undet.) (A)	1	0.2	0.4	2	144.5
Parapleustes pinguis (A)	1	0.2	0.4	2	144.5
Ampelisca (undet.) (A)	1	0.2	0.4	2	144.5
Tubificid (undet.)	1	0.2	0.4	2	144.5
Crepidula plana (M)	1	0.2	0.4	2	144.5
Ogyrides alphaerostris (D)	1	0.2	0.4	2	144.5
Leptosynapta sp. (E)	1	0.2	0.4	2	144.5

Table [illegible]. Abundance of macroinvertebrate species in grab collections from station [illegible]. A = Amphipoda; C = Cumacea; D = Decapoda; E = Echinodermata; Ec = [illegible]; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipunculida.

		19[illegible]			
Species	Total Number	Number/0.1m² $\bar{x}$	SD	Estimated Number m²	Rank by Number
Protohaustorius nr. deichmannae (A)	[illegible]	[illegible]	[illegible]	72	[illegible]
Spiophanes bombyx (P)	[illegible]	5.5	3.5	56	[illegible]
Strigilla mirabilis (M)	[illegible]	[illegible]	[illegible]	50	[illegible]
[illegible] umbellata (E)	24	4.8	2.2	48	[illegible]
Nephtys picta (P)	22	4.4	3.4	44	5.0
Nemertini undet. (A)	19	3.8	3.0	38	6.5
[illegible] (M)	19	3.8	2.6	38	6.5
Aspidosiphon [illegible] (S)	10	2.0	2.9	20	8.0
Tellina [illegible] (M)	9	1.8	2.5	18	9.0
[illegible] (A)	6	1.2	1.5	12	11.0
[illegible] (P)	6	1.2	0.8	12	11.0
[illegible] (P)	6	1.2	1.3	12	11.0
[illegible] sp. (A)	5	1.0	0.7	10	14.0
[illegible] (A)	5	1.0	0.7	10	14.0
[illegible] undet.	5	1.0	1.2	10	14.0
[illegible]	4	0.8	[illegible]	8	17.0
Magelona [illegible]	4	0.8	[illegible]	8	17.0
[illegible] (P)	4	0.8	[illegible]	8	17.0
[illegible] undet. (A)	3	0.6	0.5	6	21.5
[illegible] (A)	3	0.6	[illegible]	6	21.5
[illegible] (P)	3	0.6	0.5	6	21.5
[illegible] undet.	3	0.6	[illegible]	6	21.5
[illegible]	3	0.6	0.4	6	21.5
[illegible] (P)	3	0.6	[illegible]	6	21.5
[illegible] (E)	2	0.4	[illegible]	4	28.0
[illegible]	2	0.4	[illegible]	4	28.0
Mellita quinquiesperforata (E)	2	0.4	[illegible]	4	28.0
Nemertinea undet.	2	0.4	[illegible]	4	28.0
[illegible] sp. (P)	2	0.4	[illegible]	4	28.0
Lumbrineris [illegible] (P)	2	0.4	[illegible]	4	28.0
[illegible] (P)	2	0.4	0.9	4	28.0
[illegible] (D)	1	0.2	0.4	2	45.0
[illegible] parvulus (D)	1	0.2	0.4	2	45.0
Brachyura undet. (D)	1	0.2	0.4	2	45.0
[illegible] (D)	1	0.2	0.4	2	45.0
[illegible] websteri (D)	1	0.2	0.4	2	45.0
[illegible] crenulata (P)	1	0.2	0.4	2	45.0
[illegible] parkeri (A)	1	0.2	0.4	2	45.0
[illegible] (A)	1	0.2	0.4	2	45.0
[illegible] undet.	1	0.2	0.4	2	45.0
[illegible] undet.	1	0.2	0.4	2	45.0
[illegible] (P)	1	0.2	0.4	2	45.0
[illegible] sp. A (P)	1	0.2	0.4	2	45.0
[illegible] (M)	1	0.2	0.4	2	45.0
[illegible] undet. (M)	1	0.2	0.4	2	45.0
[illegible] trilineata (M)	1	0.2	0.4	2	45.0
[illegible] (M)	1	0.2	0.4	2	45.0
[illegible] (P)	1	0.2	0.4	2	45.0
[illegible] (P)	1	0.2	0.4	2	45.0
[illegible] gracilis (P)	1	0.2	0.4	2	45.0
[illegible] sp. (P)	1	0.2	0.4	2	45.0
[illegible]	1	0.2	0.4	2	[illegible]
[illegible]	1	0.2	0.4	2	[illegible]
[illegible]	1	0.2	0.4	2	[illegible]
[illegible]	1	0.2	0.4	2	[illegible]
[illegible]	1	0.2	0.4	2	[illegible]
[illegible]	1	0.2	0.4	2	[illegible]
[illegible]	1	0.2	0.4	2	[illegible]

Table 37. Abundance of major invertebrate species in grab collections [illegible] Amphipoda; [illegible] = [illegible]; D = Decapoda; [illegible] Echinodermata; [illegible]; M = Mollusca; My = Mysidacea; [illegible] [illegible]

DS15

Species	Total Number	Number (m²) $\bar{X}$	SD	[illegible]	[illegible]
[illegible] (M)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (M)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nemertea undet.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (M)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (A)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	12	[illegible]
[illegible] (A)	[illegible]	[illegible]	[illegible]	12	14.5
[illegible]	[illegible]	1.2	[illegible]	12	14.5
[illegible] (P)	[illegible]	1.2	[illegible]	12	14.5
[illegible] (M)	[illegible]	[illegible]	[illegible]	[illegible]	17.0
[illegible] parkeri (A)	[illegible]	[illegible]	[illegible]	[illegible]	20.5
[illegible] brasiliensis (A)	[illegible]	0.5	[illegible]	[illegible]	20.5
[illegible] smithi (D)	[illegible]	0.8	[illegible]	8	20.5
[illegible] (M)	[illegible]	0.8	0.4	8	20.5
[illegible] (P)	[illegible]	0.8	[illegible]	8	20.5
[illegible] (P)	[illegible]	0.8	[illegible]	8	20.5
[illegible] (A)	3	0.6	0.9	6	30.5
[illegible] sp. (A)	3	0.6	0.9	6	30.5
[illegible] sp. (A)	3	0.6	0.9	6	30.5
[illegible]	[illegible]	0.6	[illegible]	6	30.5
[illegible] (M)	[illegible]	0.6	0.9	6	30.5
[illegible] (M)	[illegible]	0.6	0.9	6	30.5
[illegible] (M)	3	0.6	0.5	6	30.5
[illegible] (M)	3	0.6	0.5	6	30.5
[illegible]	3	0.6	0.9	6	30.5
[illegible]	3	0.6	[illegible]	6	30.5
[illegible]	3	0.6	[illegible]	6	30.5
[illegible]	[illegible]	[illegible]	0.5	6	30.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30.5
[illegible]	3	[illegible]	[illegible]	6	30.5
[illegible] undet.	2	[illegible]	[illegible]	4	42.0
[illegible] sp.	2	0.4	[illegible]	4	42.0
[illegible] (A)	2	0.4	[illegible]	4	42.0
[illegible]	2	0.4	[illegible]	4	42.0
[illegible] undet.	[illegible]	[illegible]	[illegible]	4	42.0
[illegible] undet. (A) (M)	[illegible]	[illegible]	[illegible]	4	42.0
[illegible] (P)	[illegible]	[illegible]	[illegible]	4	42.0
[illegible] (P)	[illegible]	[illegible]	0.9	4	42.0
[illegible] (P)	[illegible]	0.4	0.5	4	42.0
[illegible] (P)	[illegible]	0.2	[illegible]	2	63.5
[illegible]	[illegible]	0.2	0.4	2	63.5
[illegible]	[illegible]	0.2	[illegible]	2	63.5
[illegible] (D)	[illegible]	0.2	0.4	2	63.5
[illegible] (A)	[illegible]	0.2	0.4	2	63.5
[illegible] (A)	[illegible]	[illegible]	0.4	[illegible]	[illegible]
[illegible] (A)	[illegible]	[illegible]	[illegible]	2	[illegible]
[illegible] (A)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (M)		[illegible]	[illegible]	[illegible]	[illegible]
[illegible] sp. (M)		[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
[illegible] sp. (M)		[illegible]	[illegible]	[illegible]	[illegible]

Table [illegible] (cont.)

(S[illegible])

Species	Total Number	Number / 0.1m² $\bar{x}$	Number / 0.1m² SD	Estimated Number m⁻²	Rank by Number
[illegible] sagitta (M)	1	0.2	0.4	2	63.5
[illegible] (M)	1	0.2	0.4	2	63.5
Aspidosiphon spinalis (S)	1	0.2	0.4	2	63.5
Sipunculida (undet.)	1	0.2	0.4	2	63.5
Scoloplos rubra (P)	1	0.2	0.4	2	63.5
Glycera sp. (juv.) (P)	1	0.2	0.4	2	63.5
[illegible] (P)	1	0.2	0.4	2	63.5
Ma[illegible] (P)	1	0.2	0.4	2	63.5
Cirratulidae (undet. B) (P)	1	0.2	0.4	2	63.5
Tharyx marioni (P)	1	0.2	0.4	2	63.5
[illegible] (P)	1	0.2	0.4	2	63.5
Polydora sp. B (P)	1	0.2	0.4	2	63.5
Aedicira belgicae (P)	1	0.2	0.4	2	63.5
Phyllodoce castanea (P)	1	0.2	0.4	2	63.5
Glycera dibranchiata (P)	1	0.2	0.4	2	63.5
[illegible] fragilis (P)	1	0.2	0.4	2	63.5
Aricidea sp. A (P)	1	0.2	0.4	2	63.5
Oligochaeta (undet.)	1	0.2	0.4	2	63.5
Cirratulidae (undet.) (P)	1	0.2	0.4	2	63.5

Table 34. Abundance of macroinvertebrate taxa collected in grab [illegible] from [illegible]. [illegible]
Br = Brachiopoda; Cn = Cnidaria; Cr = Crustacea; E = Echinodermata; F = [illegible]
G = Gastropoda; I = Insecta; M = Mollusca; Mi = Miscellanea; P = Polychaeta; T = Tubificidae

Station	Total Number	DSLO Number	Mean	SD	Estimated Number per	Rank by Number
Ampelisca abdita (Cr)	449	89.2	38.0		892	1.0
Apocorophium acutum (Cr)	173	35.0	9.8		350	2.0
Nemodactylus breweri (P)	126	25.0	12.5		250	3.0
Tellinella sp. A (M)	121	24.2	14.9		242	4.0
Tharyx cf. marginatus (P)	115	23.0	11.9		230	5.0
Nematoda (Mi) undet.	111	22.2	14.7		222	6.0
Paraonella monilaris (P)	91	18.2	9.9		182	7.5
Cirratulidae (P) undet. B	91	18.2	14.1		182	7.5
Prionospio (P) fallax	88	17.6	9.0		176	9.0
Amphiuridae (E) undet. A	70	14.0	14.4		140	10.0
Mediomastus (P) ambiseta	64	12.8	4.5		128	11.0
Cirratulidae (P) undet.	61	12.2	5.6		122	12.0
Unciola (Cr) inermis	48	9.6	5.2		96	13.0
Leptocheirus (Cr) pinguis	39	7.8	7.8		78	14.0
Nereidae (P) undet.	34	6.8	3.2		68	15.0
Nassarius (G) trivittatus	32	6.4	4.1		64	16.0
Tubificoides (T) A	29	5.8	5.8		58	17.0
Mysella (M) planulata (P)	26	5.2	3.6		52	18.0
Amphinella (P) minax	25	5.0	3.7		50	20.0
Glycera (P) tridactyla	25	5.0	2.7		50	20.0
Nephtys (P) incisa	25	5.0	2.5		50	20.0
Rhepoxynius (Cr) fimbriatus	24	4.8	3.6		48	22.0
Ampelisca (Cr) vadorum	22	4.4	3.5		44	24.0
Lumbrineris (P) tenuis	22	4.4	4.4		44	24.0
Nereis (P) succinea	22	4.4	4.3		44	24.0
Acteocina (G) sp. B	21	4.2	1.3		42	26.0
Sipuncula (Mi) undet.	20	4.0	2.3		40	27.0
Tharyx sp. A (P)	19	3.8	1.9		38	28.0
Tellidora (M) burchi	18	3.6	4.1		36	29.0
Mediomastus (P) californiensis	17	3.4	2.2		34	30.0
Terebellidae (P) undet. B	16	3.2	2.8		32	31.5
Owenia (P) fusiformis	16	3.2	3.1		32	31.5
Pennaxia (P) eliasoni	15	3.0	1.7		30	33.0
Tellidora (M) sp. A	15	3.0	2.0		30	33.0
Aphelochaeta (P) tigrina	15	3.0	2.3		30	33.0
Diopatra (P) cuprea	15	3.0	3.2		30	33.0
Mediomastus (P) ambiseta californiensis	15	3.0	2.2		30	33.0
Tellidora (M) cristata	14	2.8	2.5		28	35.5
Mysella (M) tumida (P)	14	2.8	2.2		28	35.5
Ampelisca (Cr) hancocki	13	2.6	1.5		26	37.5
Scoletoma (P) tetraura	13	2.6	1.5		26	37.5
Ampelisca (Cr) careyi	12	2.4	1.5		24	39.5
Lumbrineris (P) latreilli	12	2.4	1.5		24	39.5
Armandia (P) brevis	12	2.4	1.5		24	39.5
Nuculana (M) taphria	11	2.2	1.3		22	41.0
Ampelisca (Cr) [illegible]	10	2.0	1.0		20	42.0
Cirratulus (P) A	8	1.6	1.1		16	43.0
Nereis (P) [illegible]	8	1.6	1.1		16	43.0
Acteocina (G) [illegible]	7	1.4	1.1		14	45.5
Ampelisca (Cr) [illegible]	7	1.4	1.1		14	45.5
Cirratulidae (P) undet. A	7	1.4	1.1		14	45.5
Nereis (P) [illegible]	7	1.4	1.1		14	45.5
Nuculana (M) [illegible]	7	1.4	1.1		14	45.5
Ampelisca (Cr) [illegible]	6	1.2	1.1		12	48.0
Cirratulus (P) [illegible]	6	1.2	1.1		12	48.0
Mediomastus (P) [illegible]	6	1.2	1.1		12	48.0
Nereidae (P) undet. B	6	1.2	1.1		12	48.0
Nuculana (M) [illegible]	6	1.2	1.1		12	48.0

Table [illegible] (cont.)

[illegible]

Species	Total Number	Number m⁻² $\bar{X}$	Number m⁻² SE	Estimated Number m⁻²	Rank by Number
[illegible] (P)	7	1.4	1.[illegible]	14	55.5
[illegible] (P)	7	1.4	[illegible]	14	58.5
[illegible] (P)	7	1.4	1.1	14	56.5
Clymenella [illegible] (P)	7	1.4	[illegible].9	14	55.5
Heterocrypta granulata (D)	6	1.2	1.3	12	64.[illegible]
[illegible] (P)	6	1.2	0.8	12	64.[illegible]
[illegible] undet. A (P)	6	1.2	0.8	12	64.[illegible]
[illegible] (P)	6	1.2	2.2	12	64.[illegible]
Prionospio cirrobranchiata (P)	6	1.2	1.3	12	64.[illegible]
[illegible] smithii (D)	5	1.0	1.7	10	72.0
[illegible] (P)	5	1.0	1.4	10	72.0
[illegible] sp. A	5	1.0	1.7	[illegible]	72.[illegible]
[illegible] undet.	5	1.[illegible]	1.2	1[illegible]	72.[illegible]
[illegible]	5	1.0	1.[illegible]	[illegible]	72.[illegible]
Nemertina undet. B	5	1.0	[illegible]	[illegible]	72.[illegible]
[illegible] (P)	5	[illegible]	1.[illegible]	[illegible]	72.[illegible]
[illegible] (P)	5	1.[illegible]	[illegible]	10	72.0
[illegible] (M)	5	1.0	1.2	10	72.0
[illegible] (P)	5	1.0	1.2	1[illegible]	72.0
[illegible] (P)	5	1.0	[illegible].7	1[illegible]	72.0
[illegible] (P)	4	0.8	1.3	8	82.5
[illegible] undet. A	4	0.8	0.4	8	82.5
[illegible] williamsi (A)	4	0.8	1.[illegible]	8	82.5
[illegible]	4	0.8	0.8	8	82.5
[illegible] sp. (M)	4	0.8	0.8	8	82.5
[illegible]idae undet. (P)	4	0.8	1.1	8	82.5
[illegible]idae undet. B (P)	4	0.8	1.5	8	82.5
[illegible] sp. (P)	4	0.8	0.4	8	82.5
[illegible]idae undet. A (P)	4	0.8	0.5	8	82.5
[illegible] (P)	4	0.8	1.3	8	82.5
[illegible]idae undet. (P)	[illegible]	0.6	1.[illegible]	6	94.5
[illegible] undet.	3	0.6	0.9	6	94.5
[illegible] undet.	3	0.6	0.5	6	94.5
[illegible]ensis (M)	3	0.6	0.5	6	94.5
[illegible] (M)	3	0.6	1.3	6	94.5
[illegible] (M)		0.6	0.5	6	94.5
[illegible] (M)	[illegible]	0.6	0.9	6	94.5
[illegible] (P)	[illegible]	0.6	0.5	6	94.5
[illegible]idae undet. A (P)	3	0.6	0.9	6	94.5
[illegible] gracilis (P)	3	0.6	0.9	6	94.5
[illegible] (P)	3	0.[illegible]	0.9	6	94.5
[illegible] (P)	3	0.6	1.3	6	94.5
[illegible] sp. B (P)	3	0.6	0.9	6	94.5
[illegible] (P)	[illegible]	0.6	[illegible].9	6	94.[illegible]
[illegible] undet. A	2	0.4	0.5	4	11[illegible].5
[illegible] (A)	2	0.4	0.5	4	113.5
[illegible] sp. A (M)	2	0.4	0.5	4	113.5
[illegible] (A)	2	0.4	0.5	4	11[illegible]
[illegible] (P)	2	0.4	0.5	4	113.5
[illegible] variegatus (E)	2	0.4	0.5	4	11[illegible]
[illegible]idea undet. B (P)	2	0.4	0.9	4	11[illegible].5
[illegible] pusilla (M)	2	0.4	0.5	4	11[illegible]
[illegible] (M)	2	0.4	0.5	4	11[illegible]
[illegible] (M)	2	0.4	[illegible]	4	11[illegible]
[illegible] (M)	2	0.4	[illegible]	4	11[illegible]
[illegible] (M)	2	0.4	[illegible]	4	11[illegible]
[illegible] undet.	2	0.4	[illegible]	4	11[illegible]
[illegible] (M)	2	0.4	[illegible]	4	11[illegible]
[illegible] (M)	2	0.4	[illegible]	4	11[illegible]
[illegible] (M)	[illegible]	0.4	[illegible]	4	11[illegible]

Table [illegible] (Cont.)

Species	Total Number	Number/m² X	SE	Estimated Number m²	Rank by Number
[illegible]	2	0.4	0.9	4	113.5
[illegible]	2	0.4	0.9	4	[illegible]
[illegible]	2	0.4	[illegible]	4	113.5
[illegible]	2	0.4	0.5	4	113.5
[illegible]	2	0.4	0.9	4	[illegible]
[illegible]	2	0.4	[illegible]	4	113.5
[illegible]	2	0.4	[illegible]	4	113.5
[illegible]	2	0.4	0.5	4	113.5
Calappidae (undet.) (D)	1	0.2	0.4	2	145.5
Cumacea (undet.) (F)	1	0.2	0.4	2	145.5
[illegible] brasiliensis (A)	1	0.2	0.4	2	145.5
[illegible] (A)	1	0.2	0.4	2	145.5
[illegible] (A)	1	0.2	0.4	2	145.5
[illegible] (undet.)	1	0.2	0.4	2	145.5
[illegible] (undet.)	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible] (undet.)	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible] (undet.)	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible] (undet.)	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible] (undet.)	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5
[illegible]	1	0.2	0.4	2	145.5

Table 54. Abundance of macroinvertebrate species in grab collections from station DS17. (A = Amphipoda; C = Cumacea; Ce = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipuncolida).

Species	DS17 Total Number	Number 0.1m² $\bar{x}$	Number 0.1m² SD	Estimated Number/m²	Rank by Number
Tellina probrina (M)	29	5.8	1.8	58	1.0
Nemtys gista (P)	24	4.8	1.8	48	2.0
Protohaustorius nr. deichmannae (A)	23	4.6	2.9	46	3.5
Mellita quinquiesperforata (E)	23	4.6	2.2	46	3.5
Trichophoxus epistomus (A)	21	4.2	3.3	42	5.5
Strigilla mirabilis (M)	21	4.2	4.9	42	5.5
Bathyporeia parkeri (A)	19	3.8	3.6	38	7.0
Magelona sp. (Day 73) (P)	18	3.6	5.4	36	8.0
Acanthohaustorius sp. (A)	16	3.2	2.0	32	9.0
Spiophanes bombyx (P)	10	2.0	1.0	20	10.5
Onuphis eremita (P)	10	2.0	1.6	20	10.5
Nephtyidae (undet.) A (P)	7	1.4	2.2	14	12.5
Ervilia concentrica (M)	7	1.4	0.5	14	12.5
Nemertina (undet.) A	6	1.2	1.8	12	15.0
Asplanchna sieboldi (Ec)	6	1.2	1.3	12	15.0
Glycera oxycephala (P)	6	1.2	2.2	12	15.0
Oxyurostylis smithi (C)	5	1.0	1.2	10	17.0
Cirrophorus tropakis (A)	4	0.8	0.8	8	19.0
Aspidosiphon misakiensis (S)	4	0.8	1.1	8	19.0
Magelona papillicornis (P)	4	0.8	1.3	8	19.0
Pseudoplatyischnopus floridanus (A)	3	0.6	0.5	6	23.0
Turbellaria (undet.)	3	0.6	0.9	6	23.0
Diastylopsis dawsoni (C)	3	0.6	0.9	6	23.0
Tellina texana (M)	3	0.6	1.3	6	23.0
Scoletoma texana (P)	3	0.6	0.9	6	23.0
Abarenicola pacifica (P)	2	0.4	0.5	4	27.5
Nephtys sp. A (P)	2	0.4	0.5	4	27.5
Goniada littorea (P)	2	0.4	0.5	4	27.5
Cirratulidae (undet.) B (P)	2	0.4	0.5	4	27.5
Branchiostoma caribaeum (Ce)	1	0.2	0.4	2	41.5
Pagurus longicarpus (D)	1	0.2	0.4	2	41.5
Lepidopa websteri (D)	1	0.2	0.4	2	41.5
Xanthichisum americanum (A)	1	0.2	0.4	2	41.5
Amphipoda (undet.) A	1	0.2	0.4	2	41.5
Mysidopsis sp. A (My)	1	0.2	0.4	2	41.5
Ampelisca verrilli (A)	1	0.2	0.4	2	41.5
Apanthura magnifica (I)	1	0.2	0.4	2	41.5
Nemertina (undet.) B	1	0.2	0.4	2	41.5
Natica pusilla (M)	1	0.2	0.4	2	41.5
Nassarius vibex (M)	1	0.2	0.4	2	41.5
Spisula obesa (M)	1	0.2	0.4	2	41.5
Tellina sayana (M)	1	0.2	0.4	2	41.5
Aspidosiphon spinalis (S)	1	0.2	0.4	2	41.5
Magelona sp. A (P)	1	0.2	0.4	2	41.5
Tharyx marioni (P)	1	0.2	0.4	2	41.5
Prionospio fallax (P)	1	0.2	0.4	2	41.5
Axiothella mucosa (P)	1	0.2	0.4	2	41.5
Notomastus hemipodus (P)	1	0.2	0.4	2	41.5
Owenia fusiformis (P)	1	0.2	0.4	2	41.5
Orbinerels magna (P)	1	0.2	0.4	2	41.5
Ariciidea sp. A (P)	1	0.2	0.4	2	41.5
Oligochaeta (undet.)	1	0.2	0.4	2	41.5
Prionospio dayi (P)	1	0.2	0.4	2	41.5

Table xx. Abundance of macroinvertebrate species in grab collections from station DS18. (A = Amphipoda; Br = Brachiopoda; C = Cumacea; Ch = Chordata-Enteropneusta; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipuncula).

	DS18				
Species	Total Number	Number/0.1m² $\bar{x}$	SD	Estimated Number m⁻²	Rank by Number
Prionospio fistula (P)	136	37.2	48.2	372	1.0
Granulotoma rubidum (Sc)	39	17.8	23.4	178	2.0
Nothria barbarae (P)	52	10.4	10.1	104	3.0
Erichthonius brasiliensis (A)	41	8.2	7.3	82	4.0
Spiophanes bombyx (P)	35	7.0	8.6	70	5.0
Hemipodus olivieri (P)	34	6.8	14.1	68	6.0
Oligobregma oxycephala (P)	23	4.6	2.3	46	7.0
Polycirrus eximius (P)	18	3.6	7.5	36	8.0
Cyclaspis varians (C)	16	3.2	2.6	32	10.0
Crassinella lunulata (M)	16	3.2	3.0	32	10.0
Aspidosiphon spinalis (S)	16	3.2	3.8	32	10.0
Nemertina (undet.) A	14	2.8	2.4	28	12.0
Ervilia concentrica (M)	13	2.6	2.3	26	13.0
Apanthura magnifica (I)	12	2.4	1.7	24	14.5
Lumbrineris latreilli (P)	12	2.4	2.9	24	14.5
Nereis succinea (P)	11	2.2	2.7	22	16.0
Aricidea (Acmira) sp. (A)	10	2.0	3.1	20	17.5
Nephtys picta (P)	10	2.0	2.0	20	17.5
Nematoda (undet.)	9	1.8	2.0	18	20.5
Axiothella mucosa (P)	9	1.8	1.9	18	20.5
Diopatra cuprea (P)	9	1.8	2.7	18	20.5
Eulalia sanguinea (P)	9	1.8	1.8	18	20.5
Pseudoplatyischnopus floridanus (A)	8	1.6	1.9	16	24.0
Tellina aequalina (M)	8	1.6	1.5	16	24.0
Hydroides protulicola (P)	8	1.6	2.2	16	24.0
Protohaustorius sp. nr. deichmannae (A)	7	1.4	2.6	14	27.5
Fleminia tripakis (A)	7	1.4	0.9	14	27.5
Crepidula sp. (M)	7	1.4	2.1	14	27.5
Eharyx marioni (P)	7	1.4	2.6	14	27.5
Axinopsella smithi (M)	6	1.2	1.3	12	30.0
Batonereis narragansetensis (P)	5	1.0	1.0	10	33.5
Callianassa sp. (A)	5	1.0	1.2	10	33.5
Erichthonius brasiliensis (A)	5	1.0	1.7	10	33.5
Amphis arenicola (P)	5	1.0	2.2	10	33.5
Spio pettibonege (P)	5	1.0	1.0	10	33.5
Phyllodoce arenae (P)	5	1.0	1.2	10	33.5
Crassinella martinicensis (M)	4	0.8	1.3	8	38.0
Serpulus vermicularis granulosa (P)	4	0.8	0.8	8	38.0
Amphis arenicola (P)	4	0.8	0.8	8	38.0
Pagurus longicarpus (D)	3	0.6	0.9	6	41.5
Goniadides carolinae (P)	3	0.6	0.5	6	41.5
Amphictene auricoma (P)	3	0.6	0.5	6	41.5
Clymenella torquata (P)	3	0.6	0.9	6	41.5
Heteromysta grandata (D)	2	0.4	0.5	4	50.0
Erasmops lewisi (A)	2	0.4	0.5	4	50.0
Tellina polita (M)	2	0.4	0.5	4	50.0
Nemertina (undet.) B	2	0.4	0.9	4	50.0
Mellita quinquiesperforata (E)	2	0.4	0.5	4	50.0
Calyptraea centralis (M)	2	0.4	0.9	4	50.0
Aspidosiphon misakiensis (S)	2	0.4	0.5	4	50.0
Terratilidae (undet.) B (P)	2	0.4	0.9	4	50.0
Terebellides ivriformis (P)	2	0.4	0.5	4	50.0
Nephtys incisa (P)	2	0.4	0.9	4	50.0
Nereis squamosa (P)	2	0.4	0.5	4	50.0
Armandia maculata (P)	2	0.4	0.9	4	50.0
Polygordius jouinensis (P)	1	0.2	0.4	2	71.5
Tellidoropsis mestrii (M)	1	0.2	0.4	2	71.5
Bra[illegible] (undet.) B (P)	1	0.2	0.4	2	71.5
Sipunculum nudum (S)	1	0.2	0.4	2	71.5
Amphipoda (undet.) A	1	0.2	0.4	2	71.5

Table 24. Cont.

DS18

Species	Total Number	Number/0.1m² $\bar{x}$	Number/0.1m² SD	Estimated Number/m²	Rank by Number
Eurylira littoralis (I)	1	0.2	0.4	2	71.5
Magra williamsi (A)	1	0.2	0.4	2	71.5
Ampelisca verrilli (A)	1	0.2	0.4	2	71.5
Bateis catharinensis (A)	1	0.2	0.4	2	71.5
Anchinus depressus (I)	1	0.2	0.4	2	71.5
Corophium tuberculatum (A)	1	0.2	0.4	2	71.5
Holothuroidea (undet.) B (E)	1	0.2	0.4	2	71.5
Mattidia pyramidata (Br)	1	0.2	0.4	2	71.5
Discoporella umbellata (Br)	1	0.2	0.4	2	71.5
Strigilla mirabilis (M)	1	0.2	0.4	2	71.5
Natica pusilla (M)	1	0.2	0.4	2	71.5
Tellina texana (M)	1	0.2	0.4	2	71.5
Semele bellastriata (M)	1	0.2	0.4	2	71.5
Semele nuculoides (M)	1	0.2	0.4	2	71.5
Mitrella lunata (M)	1	0.2	0.4	2	71.5
Nucula proxima (M)	1	0.2	0.4	2	71.5
Spisula solidissima (M)	1	0.2	0.4	2	71.5
Pelecypoda (undet.)	1	0.2	0.4	2	71.5
Nereis americana (P)	1	0.2	0.4	2	71.5
Magelona sp. (Dav 73) (P)	1	0.2	0.4	2	71.5
Sabellaria vulgaris (P)	1	0.2	0.4	2	71.5
Ancistrosyllis jonesi (P)	1	0.2	0.4	2	71.5
Owenia fusiformis (P)	1	0.2	0.4	2	71.5
Scoletepis texana (P)	1	0.2	0.4	2	71.5
Oligochaeta (undet.)	1	0.2	0.4	2	71.5
Chrysopetalidae (undet.) (P)	1	0.2	0.4	2	71.5

Table 51. Abundance of macroinvertebrate species in grab collections from station DS19. (A = Amphipoda; C = Cumacea; Cc = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipunculida).

	DS19				
Species	Number	Number/0.1m² $\bar{X}$	SD	Estimated Number m⁻²	Rank by Number
Branchiostoma caribaeum (Cc)	37	7.4	13.3	74	1.0
Tellina probrina (M)	35	7.0	4.0	70	2.5
Onuphis eremita (P)	35	7.0	7.0	70	2.5
Spiophanes bombyx (P)	27	5.4	4.9	54	4.0
Acanthonaustorius sp. (A)	25	5.0	4.3	50	5.0
Strigilla mirabilis (M)	24	4.8	3.6	48	6.0
Spio pettiboneae (P)	21	4.2	7.7	42	7.0
Nematoda (undet.)	20	4.0	5.5	40	8.5
Crassinella lunulata (M)	20	4.0	5.7	40	8.5
Poniadides carolinae (P)	17	3.4	7.6	34	10.0
Discoporella umbellata (Ec)	16	3.2	2.4	32	11.5
Prionospio fallax (P)	16	3.2	7.2	32	11.5
Nephtys picta (P)	13	2.6	2.6	26	13.0
Trichophoxus floridanus (A)	12	2.4	2.8	24	15.0
Nemertina (undet.) (A)	12	2.4	0.9	24	15.0
Glycera oxycephala (P)	12	2.4	2.5	24	15.0
Lucinidae (undet.) (A, M)	11	2.2	2.8	22	17.0
Pagurus longicarpus (D)	10	2.0	4.5	20	18.5
Diastylis burbanckii (I)	10	2.0	2.3	20	18.5
Batyporeia parkeri (A)	9	1.8	1.3	18	20.0
Protohaustorius nr. deichmannae (A)	6	1.2	1.0	12	22.0
Ervilia concentrica (M)	6	1.2	1.1	12	22.0
Tharyx marioni (P)	6	1.2	2.7	12	22.0
Pseudoplatyischnopus floridanus (A)	5	1.0	1.0	10	24.0
Heterocrypta granulata (D)	4	0.8	1.8	8	25.5
Trichophoxus epistomus (A)	4	0.8	0.4	8	25.5
Brachyura (undet.) (A, D)	3	0.6	0.5	6	30.0
Oxyurostylis smithi (C)	3	0.6	0.9	6	30.0
Lumbrineris latreilli (P)	3	0.6	0.9	6	30.0
Owenia fusiformis (P)	3	0.6	1.3	6	30.0
Armandia maculata (P)	3	0.6	1.3	6	30.0
Prionospio dayi (P)	3	0.6	0.9	6	30.0
Gigambra bassi (P)	3	0.6	0.9	6	30.0
Lilieborgia sp. (A)	2	0.4	0.5	4	38.5
Cylaspis varians (C)	2	0.4	0.5	4	38.5
Mellita quinquiesperforata (E)	2	0.4	0.9	4	38.5
Ophioprasmus sp. A (E)	2	0.4	0.5	4	38.5
Tapuladria doma (Ec)	2	0.4	0.9	4	38.5
Magelona sp. Dav 73 (P)	2	0.4	0.9	4	38.5
Scoloplos rubra (P)	2	0.4	0.5	4	38.5
Nereis succinea (P)	2	0.4	0.5	4	38.5
Chrysopetalidae (undet.) (P)	2	0.4	0.9	4	38.5
Spiophanes wigleyi (P)	2	0.4	0.9	4	38.5
Albunea paretii (D)	1	0.2	0.4	2	54.0
Hepatus epheliticus (D)	1	0.2	0.4	2	54.0
Lembos unicornis (A)	1	0.2	0.4	2	54.0
Amphipoda (undet.) (A)	1	0.2	0.4	2	54.0
Hippomedon serratus (A)	1	0.2	0.4	2	54.0
Tiron tropakis (A)	1	0.2	0.4	2	54.0
Oliva sayana (M)	1	0.2	0.4	2	54.0
Spisula solidissima (M)	1	0.2	0.4	2	54.0
Abra aequalis (M)	1	0.2	0.4	2	54.0
Sipunculus nudus (S)	1	0.2	0.4	2	54.0
Nereis acuminata (P)	1	0.2	0.4	2	54.0
Amaeana trilobata (P)	1	0.2	0.4	2	54.0
Nephtys incisa (P)	1	0.2	0.4	2	54.0
Aglaophamus verrilli (P)	1	0.2	0.4	2	54.0
Glycinde solitaria (P)	1	0.2	0.4	2	54.0
Goniadides carolinae (P)	1	0.2	0.4	2	54.0
Aricidea fragilis (P)	1	0.2	0.4	2	54.0
Magelona papillicornis (P)	1	0.2	0.4	2	54.0
Scoloplos texana (P)	1	0.2	0.4	2	54.0
Lepidasthenia pettiboneae (P)	1	0.2	0.4	2	54.0
Tellina tenuicula (M)	1	0.2	0.4	2	54.0
Ophiothrix angulata (E)	1	0.2	0.4	2	54.0

Table 31. Abundance of macroinvertebrate species in grab collections from station 0820. A = Amphipoda; Br = Brachiopoda; C = Cumacea; Ch = Chordata; Cn = Cnidaria; D = Decapoda; E = Echinodermata; Ec = Echiuroidea; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipuncula).

Species	Total Number	Number /0.1m² x̄	Number /0.1m² SD	Estimated Number m⁻²	Rank by Number
Tellina probrina (M)	103	20.6	13.2	206	1.0
Diastoporella umbellata (Br)	33	6.6	5.1	66	2.5
Nephtys picta (P)	33	6.6	2.4	66	2.5
Nematoda (undet.)	24	4.8	5.6	48	4.0
Spiophanes bombyx (P)	23	4.6	1.8	46	5.0
Acanthohaustorius sp. (A)	20	4.0	3.8	40	6.5
Trichophoxus epistomus (A)	20	4.0	3.5	40	6.5
Prionospio dayi (P)	18	3.6	1.1	36	8.0
Bathyporeia parkeri (A)	17	3.4	4.3	34	9.0
Streblla mirabilis (M)	15	3.0	2.2	30	10.5
Nucula oxycephala (P)	15	3.0	2.3	30	10.5
Protohaustorius sp. deichmannae (A)	14	2.8	2.8	28	12.0
Tellina texana (M)	13	2.6	1.1	26	13.0
Nemertina (undet.) A	12	2.4	0.9	24	14.0
Branchiostoma caribaeum (C)	11	2.2	2.7	22	15.0
Tiron tropakis (A)	10	2.0	1.4	20	17.0
Streblla concentrica (M)	10	2.0	0.7	20	17.0
Magelona sp. (Day '73) (P)	10	2.0	1.0	20	17.0
Mediita pinguiesperforata (E)	7	1.4	1.1	14	19.5
Ophiophragmus sp. A (E)	7	1.4	1.1	14	19.5
Pseudopolydora floridanus (A)	6	1.2	0.8	12	21.0
Exogostylis smithi (C)	5	1.0	1.4	10	22.5
Cnuphis eremita (P)	5	1.0	1.2	10	22.5
Synelidium americanum (A)	4	0.8	0.8	8	26.0
Turbellaria (undet.)	4	0.8	1.1	8	26.0
Metis pusilla (M)	4	0.8	0.4	8	26.0
Crassinella lunulata (M)	4	0.8	0.8	8	26.0
Nemida litterea (P)	4	0.8	0.8	8	26.0
Pagurus longicarpus (D)	3	0.6	0.9	6	32.5
Amphipoda (undet.) A	3	0.6	1.3	6	32.5
Asperosiphon nisakiensis (S)	3	0.6	0.9	6	32.5
Aglaophamus verrilli (P)	3	0.6	1.3	6	32.5
Owenia fusiformis (P)	3	0.6	0.9	6	32.5
Magelona papillicornis (P)	3	0.6	0.5	6	32.5
Scoloplos texana (P)	3	0.6	0.9	6	32.5
Prionospio cristata (P)	3	0.6	0.9	6	32.5
Lumbrineris inflata (A)	2	0.4	0.9	4	42.0
Ostracoda (undet.)	2	0.4	0.5	4	42.0
Cuspidaria (undet.) A, M)	2	0.4	0.5	4	42.0
Myrtea sp. (Har.) (P)	2	0.4	0.5	4	42.0
Terratulidae (undet.) B, P)	2	0.4	0.9	4	42.0
Nephtys incisa (P)	2	0.4	0.9	4	42.0
Nereis succinea (P)	2	0.4	0.9	4	42.0
Aricidea sp. A (P)	2	0.4	0.9	4	42.0
Harmothoe (undet.) (P)	2	0.4	0.5	4	42.0
Spio pettibonei (P)	2	0.4	0.9	4	42.0
Haploscoloplos foliosus (P)	2	0.4	0.9	4	42.0
Trichotropis constricta (G)	1	0.2	0.4	2	54.5
Brachyura (undet.) A (D)	1	0.2	0.4	2	54.5
Brachyura (undet.) B (D)	1	0.2	0.4	2	54.5
Corbula [illegible] (M)	1	0.2	0.4	2	54.5
Callipeo stephensoni (D)	1	0.2	0.4	2	54.5
Brachyuran decapod (D)	1	0.2	0.4	2	54.5
Trichophoxus floridanus (A)	1	0.2	0.4	2	54.5
Rhepoxynius brasiliensis (A)	1	0.2	0.4	2	54.5
[illegible] sp. (A)	1	0.2	0.4	2	54.5
Turbellaria (undet.) (C)	1	0.2	0.4	2	54.5
Cerebratulus (undet.) (N)	1	0.2	0.4	2	54.5
Nemertina (undet.) B	1	0.2	0.4	2	54.5
Nephtys cirrosa (P)	1	0.2	0.4	2	54.5
Nemertina (undet.) (N)	1	0.2	0.4	2	54.5
Ampelisca (undet.) (A)	1	0.2	0.4	2	54.5
Cirratulidae (undet.) A (P)	1	0.2	0.4	2	54.5
Terebellidae (undet.) (P)	1	0.2	0.4	2	54.5
Nematoda (undet.) (N)	1	0.2	0.4	2	54.5

Table 62. (Cont.)

1982

Species	Total Number	Number/0.1m² X	Number/0.1m² SD	Estimated Number/m²	Rank by Number
Mitrella lunata (M)	1	0.2	0.4	2	64.5
Thama macrophylla (M)	1	0.2	0.4	2	64.5
Terebra concava (M)	1	0.2	0.4	2	64.5
Unknown Taxon A	1	0.2	0.4	2	64.5
Tharyx marioni (P)	1	0.2	0.4	2	64.5
Eteone lactea (P)	1	0.2	0.4	2	64.5
Lumbrineris latreilli (P)	1	0.2	0.4	2	64.5
Loimia medusa (P)	1	0.2	0.4	2	64.5
Aricidea suecica (P)	1	0.2	0.4	2	64.5
Nephtys nebulosa (P)	1	0.2	0.4	2	64.5
Spiochaetopterus costarum costatis (P)	1	0.2	0.4	2	64.5
Diopatra cuprea (P)	1	0.2	0.4	2	64.5
Oligochaeta undet.	1	0.2	0.4	2	64.5
Notoproctus spinifera (P)	1	0.2	0.4	2	64.5
Terebellidae undet. (P)	1	0.2	0.4	2	64.5
Chrysomitilidae undet. (P)	1	0.2	0.4	2	64.5

Table A1. Abundance of macroinvertebrate species in grab collections from station [illegible] (A = Amphipoda; C = Cumacea; D = Decapoda; E = Echinodermata; H = Hydrozoa; M = Mollusca; P = Polychaeta; Py = Pycnogonida; S = Sipunculida).

Species	Total Number	Number /0.1m²	Estimated Number /m²	Size Class (mm)
Spio pettibonneae (P)	174	34.8	348	1.0
Nephtys ciliata (P)	70	14.0	140	2.0
Diastylis edwardsi (C)	55	11.0	110	3.0
Diastylopsis tenuis (C)	49	9.8	98	4.0
Prionospio steenstrupi (P)	33	6.6	66	5.0
Mediomastus californiensis (P)	31	6.2	62	6.0
Tubificidae (undet.) (P)	14	2.8	28	7.0
Tellina texana (M)	13	2.6	26	8.0
Ervilia concentrica (M)	11	2.2	22	10.0
Pseudoplatyischnopus floridanus (A)	11	2.2	22	10.0
Nemertina (undet.) (H)	11	2.2	22	10.0
Aspidosiphon misakiensis (S)	11	2.2	22	10.0
Magelona sp. B (P)	11	2.2	22	10.0
Onuphis eremita (P)	10	2.0	20	11.0
Prionospio dayi (P)	10	2.0	20	11.0
Nephtys incisa (P)	9	1.8	18	12.0
Spiophanes bombyx (P)	8	1.6	16	13.0
Glycinde wrighti (P)	7	1.4	14	14.0
Spiochaetopterus costarum (P)	7	1.4	14	14.0
Phyllodoce arenae (P)	7	1.4	14	14.0
Sthenelais limicola (P)	6	1.2	12	15.0
Tellina iris (M)	6	1.2	12	15.0
Tellina versicolor (M)	5	1.0	10	16.0
Ampelisca sp. A (A)	5	1.0	10	16.0
Acanthohaustorius millsi (A)	4	0.8	8	18.0
Nereis succinea (P)	4	0.8	8	18.0
Mediomastus ambiseta (P)	4	0.8	8	18.0
Amphiodia atra (E)	4	0.8	8	18.0
Nephtys picta (P)	4	0.8	8	18.0
Nemertina (undet.) (H)	3	0.6	6	20.0
Glycinde solitaria (P)	3	0.6	6	20.0
Nephtys hombergii (P)	3	0.6	6	20.0
Lumbrineris tenuis (P)	3	0.6	6	20.0
Tellina alternata (M)	3	0.6	6	20.0
Cirratulidae (undet.) (P)	3	0.6	6	20.0
Crassinella lunulata (M)	3	0.6	6	20.0
Acanthohaustorius sp. (A)	2	0.4	4	25.0
Nuculidae (undet.) (M)	2	0.4	4	25.0
Mysidopsis almyra (C)	2	0.4	4	25.0
Amphideutopus oculuspolaris (P)	2	0.4	4	25.0
Nemertina (undet.)	2	0.4	4	25.0
Ampeliscidae (undet.) (A)	2	0.4	4	25.0
Diastylis floralia (C)	2	0.4	4	25.0
Nemertina (undet.)	1	0.2	2	51.0
Amphipoda (undet.) (A)	1	0.2	2	51.0
Pycnogonida (undet.) (Py)	1	0.2	2	51.0
Ampelisca vadorum (A)	1	0.2	2	51.0
Nemertina (undet.)	1	0.2	2	51.0
Lepidactylus lima (E)	1	0.2	2	51.0
Crassinella martinicensis (M)	1	0.2	2	51.0
Lumbrineris sp. B (P)	1	0.2	2	51.0
Polychaeta (undet.) (P)	1	0.2	2	51.0
Lumbrineris tetraura (P)	1	0.2	2	51.0
Rhepoxynius hirtus (A)	1	0.2	2	51.0
Amphideutopus oculuspolaris (P)	1	0.2	2	51.0
Armandia agilis (P)	1	0.2	2	51.0
Aricidea fragilis (P)	1	0.2	2	51.0
Magelona papillicornis (P)	1	0.2	2	51.0
Armandia maculata (P)	1	0.2	2	51.0
Lumbrineris tenuis (P)	1	0.2	2	51.0
Mediomastus stenochaeta (P)	1	0.2	2	51.0
Tellina similis (M)	1	0.2	2	51.0

Table 34. Abundance of macroinvertebrate taxa in grab collections from station DS22. A = Amphipoda; C = Gastropoda; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; M = Mollusca; P = Polychaeta; S = Stomatopoda.

	DS22				
Species	Total Number	Number/0.1 m^2 $\bar{X}$	SD	Estimated Number/m^2	Rank by Number
[illegible] (M)	[illegible]	12.0	[illegible]	120	1.0
[illegible] (P)	43	5.4	3.3	86	2.0
Nereidae virens (M)	28	5.6	3.4	56	3.0
[illegible] (indet.) A (M)	17	3.4	3.6	34	4.0
Harpiniopsis parbori (A)	15	3.0	1.9	30	5.0
[illegible] oxycephala (P)	14	2.8	2.6	28	6.0
Trichophoxus epistomus (A)	12	2.4	2.8	24	8.0
Nemertina (undet.) A	12	2.4	1.9	24	8.0
[illegible] umbellata (Ec)	12	2.4	2.4	24	8.0
[illegible] sp. (A)	11	2.2	2.3	22	10.0
[illegible] brasiliensis (A)	10	2.0	3.6	20	11.0
[illegible] (P)	8	1.6	1.1	16	12.0
[illegible] variabilis (P)	7	1.4	1.1	14	14.0
[illegible] floridanus floridanus (A)	7	1.4	1.5	14	14.0
[illegible] sp. A (P)	7	1.4	1.1	14	14.0
[illegible] (P)	5	1.0	0.7	10	17.0
[illegible] sp. B (M)	5	1.0	1.0	10	17.0
Magelona papillicornis (P)	5	1.0	1.0	10	17.0
[illegible] (M)	4	0.8	1.1	8	20.0
[illegible] (P)	4	0.8	0.8	8	20.0
[illegible] (P)	4	0.8	0.8	8	20.0
[illegible] (A)	3	0.6	0.9	6	23.5
[illegible] (M)	3	0.6	0.9	6	23.5
[illegible] brasiliensis (A)	3	0.6	1.3	6	23.5
[illegible] (P)	3	0.6	1.3	6	23.5
[illegible] (A)	2	0.4	0.5	4	30.5
[illegible] (indet.)	2	0.4	0.5	4	30.5
[illegible] (A)	2	0.4	0.9	4	30.5
[illegible] (indet.)	2	0.4	0.5	4	30.5
[illegible] (M)	2	0.4	0.9	4	30.5
[illegible] (P)	2	0.4	0.9	4	30.5
[illegible] (indet.) C (M)	2	0.4	0.5	4	30.5
[illegible] (P)	2	0.4	0.9	4	30.5
[illegible] (P)	2	0.4	0.9	4	30.5
[illegible] (P)	2	0.4	0.9	4	30.5
[illegible] (D)	1	0.2	0.4	2	48.0
[illegible] (D)	1	0.2	0.4	2	48.0
[illegible] (D)	1	0.2	0.4	2	48.0
[illegible] (D)	1	0.2	0.4	2	48.0
[illegible] (A)	1	0.2	0.4	2	48.0
[illegible] (indet.) A (E)	1	0.2	0.4	2	48.0
[illegible] (E)	1	0.2	0.4	2	48.0
[illegible] (M)	1	0.2	0.4	2	48.0
[illegible] (M)	1	0.2	0.4	2	48.0
[illegible] (M)	1	0.2	0.4	2	48.0
[illegible] (M)	1	0.2	0.4	2	48.0
[illegible] (M)	1	0.2	0.4	2	48.0
[illegible] (M)	1	0.2	0.4	2	48.0
[illegible] (M)	1	0.2	0.4	2	48.0
[illegible] (P)	1	0.2	0.4	2	48.0
[illegible] (indet. b (P)	1	0.2	0.4	2	48.0
[illegible] (P)	1	0.2	0.4	2	48.0
[illegible] (A)	1	0.2	0.4	2	48.0
[illegible] (P)	1	0.2	0.4	2	48.0
[illegible] (P)	1	0.2	0.4	2	48.0
[illegible] (P)	1	0.2	0.4	2	48.0
[illegible] (P)	1	0.2	0.4	2	48.0

Table 65. Abundance of macroinvertebrates [illegible] A = Amphipoda; I = Insecta; M = Mollusca; O = Oligochaeta; P = Polychaeta

Species	Total Number	Number per m²		Estimated Number m²	Rank by Number
		X	SD		
Sarsiella mirabilis (M)	40	1.6	2.5	42	11.5
Pellina fabrina	34	1.4	2.4	38	13.5
Cochlidae Undet. (A) (M)	50	1.9	3.3	52	10.5
Nephtys picta (P)	40	1.6	2.5	42	11.5
Pathoporeia pinkerti (A)	32	1.3	2.2	34	14.5
Diastylopsis dawsoni (C)	24	1.0	1.7	26	16.5
Spiophanes bombyx (P)	32	1.3	2.2	34	14.5
Nemertina Undet. (A)	78	3.0	4.7	84	6.5
Trichophoxus epistomus (A)	34	1.4	2.4	36	13.5
Mollusca Unidentified (M)	84	3.2	5.4	90	5.5
Acanthohaustorius sp. (A)	4	0.2	0.4	4	33.0
Pseudocaltyannopus floridanus (A)	36	1.4	2.4	38	13.5
Tubifera oxychaeta (P)	36	1.4	2.4	38	13.5
Magelona fossa (P)	30	1.1	2.0	32	15.5
Prionospio lari (P)	64	2.5	4.4	68	8.5
Protohaustorius sp. aff. deichmannae (A)	80	3.0	5.1	84	6.5
Turbonilla sp. B (M)	30	1.1	2.0	32	15.5
Ervilia concentrica (M)	80	3.0	5.1	84	6.5
Branchiostoma caribaeum (C)	12	0.4	0.8	12	22.5
Synchelidium americanum (A)	12	0.4	0.8	12	22.5
Leurostylis smithi (C)	12	0.4	0.8	12	22.5
Oniscomigmus sp. A (E)	12	0.4	0.8	12	22.5
Syrrhidae Undet. (2) (M)	12	0.4	0.8	12	22.5
Nephtys incisa (P)	12	0.4	0.8	12	22.5
Mysella eremita (P)	12	0.4	0.8	12	22.5
Aricidea sp. B (P)	12	0.4	0.8	12	22.5
Albunea paretii (C)	12	0.4	0.8	12	22.5
Trichophoxus floridanus (A)	8	0.2	0.4	8	33.0
Tiron tropakis (A)	8	0.2	0.4	8	33.0
Nematoda Undet. (-)	8	0.2	0.4	8	33.0
Mysella mutica (M)	8	0.2	0.4	8	33.0
Pellina texana (M)	8	0.2	0.4	8	33.0
Actocolina candei (M)	8	0.2	0.4	8	33.0
Polychaeta Undet. (P) (M)	8	0.2	0.4	8	33.0
Nereis sp. (Gir.) (P)	8	0.2	0.4	8	33.0
Spiochaetopterus costarum costatis (P)	8	0.2	0.4	8	33.0
Owenia fusiformis (P)	8	0.2	0.4	8	33.0
Armandia maculata (P)	8	0.2	0.4	8	33.0
Scoletoma texana (P)	8	0.2	0.4	8	33.0

Table 60. Abundance of macroinvertebrate species in grab collections from station DS24. (A = Amphipoda; C = Cumacea; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; Ph = Phoronida; P = Polychaeta; Py = Pycnogonida; S = Sipunculida).

DS24

Species	Total Number	Number 0.1m² $\bar{X}$	Number 0.1m² SD	Estimated Number m⁻²	Rank by Number
Nephtys picta (P)	31	6.2	2.9	62	1.0
Protohaustorius nr. deichmannae (A)	21	4.2	2.7	42	2.0
Pagurus longicarpus (D)	16	3.2	3.6	32	3.0
Discoporella umbellata (Ec)	14	2.8	3.3	28	4.0
Turridae (undet.) C (M)	13	2.6	3.2	26	5.0
Acanthohaustorius millsi (A)	9	1.8	3.0	18	7.0
Pseudoplatyischnopus floridanus (A)	9	1.8	1.5	18	7.0
Ervilia concentrica (M)	9	1.8	2.0	18	7.0
Mellita quinquiesperforata (E)	8	1.6	2.6	16	10.5
Strigilla mirabilis (M)	8	1.6	3.0	16	10.5
[illegible] pettiboneae (P)	8	1.6	3.6	16	10.5
Prionospio dayi (P)	8	1.6	1.5	16	10.5
Tiron tropakis (A)	[illegible]	1.0	1.2	10	13.5
Nemertina (undet.) A	5	1.0	0.7	10	13.5
Bathyporeia parkeri (A)	4	0.8	0.8	8	16.0
Natica pusilla (M)	4	0.8	0.8	8	16.0
Glycera sp. (Gar.) (P)	4	0.8	1.8	8	16.0
Ogyrides limicola (D)	3	0.6	0.5	6	20.5
Aspidosiphon spinalis (S)	3	0.6	0.5	6	20.5
Onuphis nebulosa (P)	3	0.6	0.9	6	20.5
Polydora sp. B (P)	3	0.6	1.3	6	20.5
Owenia fusiformis (P)	3	0.6	0.5	6	20.5
Onuphis eremita (P)	3	0.6	0.9	6	20.5
Leptochela serratorbita (D)	2	0.4	0.5	4	32.5
Albunea paretii (D)	2	0.4	0.5	4	32.5
Amphipoda (undet.) A	2	0.4	0.5	4	32.5
Ostracoda (undet.)	2	0.4	0.5	4	32.5
Oxyurostylis smithi (C)	2	0.4	0.5	4	32.5
Anoplodactylus petiolatus (Py)	2	0.4	0.5	4	32.5
Turbellaria (undet.)	2	0.4	0.5	4	32.5
Ophiophragmus sp. A (E)	2	0.4	0.5	4	32.5
Tellina texana (M)	2	0.4	0.5	4	32.5
Pandora trilineata (M)	2	0.4	0.9	4	32.5
Olivella floralia (M)	2	0.4	0.5	4	32.5
Dentalium eboreum (M)	2	0.4	0.9	4	32.5
Eteone lactea (P)	2	0.4	0.5	4	32.5
Glycera oxycephala (P)	2	0.4	0.5	4	32.5
Nephtys [illegible] (P)	2	0.4	0.5	4	32.5
Spiophanes bombyx (P)	2	0.4	0.9	4	32.5
[illegible] arenae (P)	2	0.4	0.5	4	32.5
Terebellidae (undet.) (P)	2	0.4	0.5	4	32.5
Trachypeneus constrictus (D)	1	0.2	0.4	2	57.5
Euceramus praelongus (D)	1	0.2	0.4	2	57.5
Acanthohaustorius sp. (A)	1	0.2	0.4	2	57.5
Synchelidium americanum (A)	1	0.2	0.4	2	57.5
Trichophoxus epistomus (A)	1	0.2	0.4	2	57.5
[illegible] incerta (A)	1	0.2	0.4	2	[illegible]
Mysidacea (undet.) A	1	0.2	0.4	2	[illegible]
Hippomedon serratus (A)	1	0.2	0.4	2	[illegible]
Chiridotea stenops (I)	1	0.2	0.4	2	[illegible]
Nemertina (undet.) B	1	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table [illegible] cont.

DS24

Species	Total Number	Number/0.1m² $\bar{x}$	Number/0.1m² SD	Estimated Number m⁻²	Rank by Number
Nemertinea (unident.) A (N)	1	0.2	0.4	2	57.5
Aspidosiphon misakiensis (S)	1	0.2	0.4	2	57.5
[illegible] carolinae (P)	1	0.2	0.4	2	57.5
Magelona sp. Day [illegible] (P)	1	0.2	0.4	2	57.5
Pseudeurythoe ambigua (P)	1	0.2	0.4	2	57.5
Loimia medusa (P)	1	0.2	0.4	2	57.5
Cirratulidae (unident.) B (P)	1	0.2	0.4	2	57.5
Axiothella mucosa (P)	1	0.2	0.4	2	57.5
Pareulepis sp. (P)	1	0.2	0.4	2	57.5
Scoloplos armiceps (P)	1	0.2	0.4	2	57.5
Arabella mutans (P)	1	0.2	0.4	2	57.5

[illegible] from station [illegible] [illegible]

Species	Total Number	[illegible] x̄	[illegible] SD	Estimated Number [illegible]	Rank by Number
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (M)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] floridanus (A)	[illegible]	[illegible]	4.2	[illegible]	3.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.5
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	5.0
[illegible] sp. (P)	[illegible]	5.0	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	4.8	[illegible]	48	7.0
[illegible]	[illegible]	4.2	[illegible]	42	8.0
[illegible] (P)	[illegible]	[illegible]	2.5	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	1.4	[illegible]	[illegible]	11.5
[illegible]	[illegible]	1.4	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	1.2	0.8	12	[illegible]
[illegible] (undet.)	[illegible]	1.0	0.7	[illegible]	15.0
[illegible]	[illegible]	1.0	1.2	[illegible]	[illegible]
[illegible] (M)	[illegible]	1.0	0.7	[illegible]	15.0
[illegible] (P)	[illegible]	0.8	1.8	8	[illegible]
[illegible]	[illegible]	0.6	1.3	[illegible]	23.0
[illegible] americanum (A)	[illegible]	0.6	0.9	[illegible]	23.0
[illegible] smithi [illegible]	3	0.6	0.9	[illegible]	23.0
[illegible] (P)	3	0.6	0.9	6	23.0
[illegible] sp. [illegible]	3	0.6	0.9	6	23.0
[illegible]ivella mutica (M)	[illegible]	0.6	0.9	[illegible]	23.0
Lucinidae (undet.) [illegible]	[illegible]	0.6	0.9	[illegible]	23.0
Lumbrineris [illegible] (P)	3	0.6	0.5	[illegible]	23.0
Nephtys incisa (P)	3	0.6	0.5	[illegible]	23.0
Owenia fusiformis (P)	3	0.6	0.5	[illegible]	23.0
Magelona [illegible] (P)	3	0.6	0.5	6	23.0
Acanthohaustorius sp. (A)	2	0.4	0.5	4	36.5
[illegible] bigelowi (My)	2	0.4	[illegible]	4	36.5
Mellita quinquiesperforata (E)	2	0.4	0.5	4	36.5
Ervilia [illegible] (M)	2	0.4	[illegible]	4	36.5
Turridae (undet.) [illegible]	2	0.4	[illegible]	4	36.5
[illegible] hians (M)	2	0.4	[illegible]	4	36.5
[illegible] sp. [illegible] (P)	2	0.4	[illegible]	4	36.5
[illegible] uncinata (P)	2	0.4	[illegible]	4	36.5
[illegible] sp. (P)	2	0.4	[illegible]	[illegible]	36.5
[illegible] sp. (P)	2	0.4	[illegible]	[illegible]	36.5
[illegible] sp. [illegible] (P)	2	0.4	[illegible]	[illegible]	36.5
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	36.5
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	36.5
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	36.5
[illegible] (undet.)	[illegible]	[illegible]	[illegible]	[illegible]	36.5
[illegible] constrictus (P)	[illegible]	[illegible]	[illegible]	[illegible]	55.0
[illegible] (A)	[illegible]	0.2	[illegible]	2	[illegible]
[illegible] floridanus (A)	[illegible]	0.2	[illegible]	2	55.0
[illegible] (A)	[illegible]	[illegible]	[illegible]	2	55.0
[illegible] serratus (A)	[illegible]	[illegible]	[illegible]	2	[illegible]
[illegible] (undet.)	[illegible]	[illegible]	[illegible]	2	[illegible]
[illegible] (undet.) [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (M)	[illegible]	[illegible]	[illegible]	2	[illegible]
[illegible] sp. [illegible] (M)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Species	Total Number	Number Mean	Number SD	Detected Number	Index of Number
[illegible] [illegible] P1	1	.2	.4	2	25.
[illegible] [illegible] [illegible] P1	1	.2	.4	2	25.
[illegible] [illegible] P1	1	.2	.4	2	25.
[illegible] [illegible] P1	1	.2	.4	2	25.
[illegible] [illegible] P1	1	.2	.4	2	25.

Table [illegible]. Abundance of macroinvertebrate species in grab collections from station [illegible]. A = Amphipoda; C = Cumacea; Ce = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Echinoidea; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipunculida.

Species	Total Number	Number 0.1 m⁻² $\bar{x}$	Number 0.1 m⁻² SD	Estimated Number m⁻²	Rank of Number
Branchiostoma caribaeum (C)	95	19.0	14.8	190	1.0
Trichophoxus floridanus (A)	40	8.0	8.6	80	2.0
Spiophanes bombyx (P)	36	7.2	1.9	72	3.0
Nematoda undet.	34	6.8	6.8	68	4.0
Tellina [illegible] (M)	27	5.4	3.2	54	5.5
[illegible] (P)	27	5.4	3.3	54	5.5
Prionospio fallax (P)	24	4.8	3.7	48	7.0
Bathyporeia parkeri (A)	23	4.6	3.6	46	8.0
Nereis [illegible] (P)	19	3.8	2.6	38	9.0
[illegible] (A)	14	2.8	2.2	28	10.0
[illegible] (C)	12	2.4	[illegible]	24	11.0
[illegible] undet. (P)	10	[illegible]	[illegible]	20	12.0
[illegible] (E)	9	1.8	[illegible]	18	[illegible]
[illegible]	9	1.8	[illegible]	18	[illegible]
[illegible]	9	1.8	3.5	18	[illegible]
[illegible] sp. (A)	8	1.6	2.1	16	[illegible]
Trichophoxus epistomus (A)	7	1.4	1.1	14	[illegible]
Nemertina undet. (A)	7	1.4	1.3	14	18.5
Magelona sp. [illegible]	7	1.4	[illegible]	14	[illegible]
Prionospio [illegible] (P)	7	1.4	1.5	14	18.5
[illegible] floridanus (A)	6	1.2	1.1	12	21.5
[illegible] (P)	6	1.2	2.2	12	21.5
[illegible]	5	1.0	1.7	10	[illegible]
[illegible]	5	1.0	0.7	10	[illegible]
[illegible] (M)	5	1.0	0.7	10	25.5
[illegible] (M)	5	1.0	[illegible]	10	25.5
[illegible]	5	1.0	1.2	10	[illegible]
[illegible] sp. A	5	1.0	[illegible]	10	25.5
[illegible] (A)	4	0.8	0.8	8	[illegible]
[illegible] undet. (A)	3	0.6	0.5	6	[illegible]
[illegible]	3	0.6	0.9	6	[illegible]
[illegible] undet.	3	0.6	[illegible]	6	33.0
[illegible]	3	0.6	0.9	6	33.5
[illegible] undet.	3	0.6	0.5	6	33.[illegible]
[illegible]	3	0.6	0.4	6	33.[illegible]
[illegible]	3	0.6	0.9	6	[illegible]
[illegible]	[illegible]	0.6	0.5	6	33.5
[illegible]	2	0.4	0.5	4	44.5
[illegible]	2	0.4	[illegible]	4	44.5
[illegible]	2	0.4	0.5	4	[illegible]
[illegible] undet.	2	0.4	[illegible]	4	[illegible]
[illegible]	2	0.4	0.4	4	[illegible]
[illegible]	2	0.4	0.4	4	[illegible]
[illegible]	2	0.4	0.5	4	[illegible]
[illegible]	2	0.4	0.4	4	[illegible]
[illegible]	2	0.4	[illegible]	4	[illegible]
[illegible] (A)	2	0.4	0.5	4	[illegible]
[illegible] (P)	2	0.4	[illegible]	4	[illegible]
[illegible] undet.	2	0.4	0.5	4	[illegible]
[illegible]	2	0.4	0.9	4	[illegible]
[illegible]	2	0.4	[illegible]	4	[illegible]
[illegible]	[illegible]	0.2	[illegible]	2	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 48. (Cont.)

DS2b

Species	Total Number	Number/0.1m² $\bar{X}$	Number/0.1m² SD	Estimated Number m²	Rank by Number
Onuphis sp. A (P)	1	0.2	0.4	2	70.0
Semele bellastriata (M)	1	0.2	0.4	2	70.0
Turbonilla sp. B (M)	1	0.2	0.4	2	70.0
Macrocallista nimbosa (M)	1	0.2	0.4	2	70.0
Terebra concava (M)	1	0.2	0.4	2	70.0
Crassinella lunulata (M)	1	0.2	0.4	2	70.0
Aspidosiphon misakiensis (S)	1	0.2	0.4	2	70.0
Sipuncula (undet.) (S)	1	0.2	0.4	2	70.0
Aricidea suecica (P)	1	0.2	0.4	2	70.0
Aricidea terruti (P)	1	0.2	0.4	2	70.0
Amastrosyllis jonesi (P)	1	0.2	0.4	2	70.0
Hydroides protulicola (P)	1	0.2	0.4	2	70.0
Syllidae (undet.) A (P)	1	0.2	0.4	2	70.0
Terebellidae (undet.) A (P)	1	0.2	0.4	2	70.0
Syllis regulata carolinae (P)	1	0.2	0.4	2	70.0
Spiochaetopterus costarum socialis (P)	1	0.2	0.4	2	70.0
Xenosyllis dentatus (P)	1	0.2	0.4	2	70.0
Pectinaria gouldii (P)	1	0.2	0.4	2	70.0
Scoloplos sp. (P)	1	0.2	0.4	2	70.0
Nereidae (undet.) (P)	1	0.2	0.4	2	70.0
Mediomastus californiensis (P)	1	0.2	0.4	2	70.0
Phyllodoce arenae (P)	1	0.2	0.4	2	70.0
Polydora caeca (P)	1	0.2	0.4	2	70.0
Magelona rosea (P)	1	0.2	0.4	2	70.0
Schistomeringos rudolphi (P)	1	0.2	0.4	2	70.0
Glumenella torquata (P)	1	0.2	0.4	2	70.0
Prionospio cirrifera (P)	1	0.2	0.4	2	70.0

Table A3. Abundance of macroinvertebrate species in grab collected in station DS2. A = Amphipoda; C = Cumacea; Ch = Chordata; Ec = Echinodermata; H = Hirudinea; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipuncula.

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Species	Total Number	Number $\bar{x}$	Number s_n^2	Estimated Number m^2	Rank by Number
Spio pettiboneae (P)	547	117.4	46.9	1174	1.0
Prionospio fallax (P)	79	15.8	14.6	158	2.0
Branchiostoma caribaeum (C)	67	13.4	11.4	134	3.0
Spiophanes bombyx (P)	59	11.8	19.8	118	4.0
Nematoda (undet.)	43	8.6	6.8	86	5.0
Prionospio cristata (P)	23	4.6	5.2	46	6.0
Tanaa tropicalis (A)	21	4.2	4.6	42	7.0
Mediomastus ambiseta (P)	17	3.4	3.4	34	8.0
Acanthohaustorius sp. (A)	17	3.4	3.2	34	9.0
Ampelisca vadorum (A)	16	3.2	2.2	32	10.5
Nereidae (undet.)	16	3.2	2.4	32	10.5
Tellinidae sp. (M)	14	2.8	3.4	28	12.5
Scoletoma tenuis (P)	14	2.8	3.9	28	12.5
Leptochelia dubia longicornis (A)	13	2.6	1.1	26	14.0
Armandia maculata (P)	12	2.4	2.8	24	15.0
Glycera americana (P)	11	2.2	2.2	22	16.0
Tellina probrina (M)	9	1.8	1.8	18	17.5
Scoletoma arenae (P)	9	1.8	1.8	18	17.5
Nephtys longicornis (P)	7	1.4	1.7	14	20.0
Axinella triangulata (P)	7	1.4	1.7	14	20.0
Tenuela parvilobis (M)	7	1.4	1.0	14	20.0
Erycina interstriata (M)	6	1.2	1.1	12	22.0
Bicorpora parkeri (A)	5	1.0	1.7	10	24.0
Protohastatoides cf. leuschnanae (A)	5	1.0	1.0	10	24.0
Strigilla pisiformis (M)	5	1.0	1.7	10	24.0
Prionospio dayi cristatus (P)	4	0.8	1.3	8	30.0
Ampelisca (undet.) (A)	4	0.8	1.3	8	30.0
Aquilophanes emiliae (P)	4	0.8	1.1	8	30.0
Parvilardia (undet.)	4	0.8	1.8	8	30.0
Nemertina (undet.) (A)	4	0.8	0.8	8	30.0
Nemertina (undet.) (B)	4	0.8	0.8	8	30.0
Calyptraea centralis (M)	4	0.8	1.1	8	30.0
Astrobrachion grandis (O)	4	0.8	1.8	8	30.0
Nereis succinea (P)	4	0.8	1.8	8	30.0
Lembos intermis (A)	3	0.6	1.3	6	37.0
Lumbrineris latreilli (P)	3	0.6	0.9	6	37.0
Aricidea pseudi (P)	3	0.6	0.9	6	37.0
Ingonis nepiosa (P)	3	0.6	0.4	6	37.0
Phyllodoce castanea (P)	3	0.6	1.3	6	37.0
Synchelidium americanum (A)	2	0.4	0.5	4	44.0
Aricidea verians (P)	2	0.4	0.5	4	44.0
Brichtonius brasiliensis (A)	2	0.4	0.8	4	44.0
Crassinella lunulata (M)	2	0.4	0.5	4	44.0
Exogone lactea (P)	2	0.4	0.5	4	44.0
Syllis regulata parolinae (P)	2	0.4	0.8	4	44.0
Hesionidae (undet.) (P)	2	0.4	0.7	4	44.0
Nemanthis roseus (P)	2	0.4	0.5	4	44.0
Schistomeringos rudolphi (P)	2	0.4	1.6	4	44.0
Diastylopsis tenuis (C)	1	0.2	0.4	2	63.5
Myrtea pellucidus (M)	1	0.2	0.4	2	63.5
Ostracoda (undet.) (O)	1	0.2	0.4	2	63.5
Aspidosiphon (undet.) (S)	1	0.2	0.4	2	63.5
Ampelisca (undet.) (A)	1	0.2	0.4	2	63.5
Amphipoda (undet.)	1	0.2	0.4	2	63.5
Ampelisca verrilli (A)	1	0.2	0.4	2	63.5
Aricidea (undet.) (P)	1	0.2	0.4	2	63.5
Aricidea (Acesta) (P)	1	0.2	0.4	2	63.5
Mediomastus (undet.) (P)	1	0.2	0.4	2	63.5
Nemertina (undet.) (C)	1	0.2	0.4	2	63.5
Nemertina sp. B (A)	1	0.2	0.4	2	63.5
Sabellidae (P)	1	0.2	0.4	2	63.5

Table 69. (Cont.)

Species	Total Number	Number $\bar{x}$	[illegible]	Estimated Number m^2	Rank by Number
Semele bellastriata (M)	1	[illegible]	[illegible]	2	63.5
Crassinella martinicensis (M)	1	[illegible]	[illegible]	2	63.5
Pelecypoda (undet.) (J)	1	[illegible]	[illegible]	2	63.5
Magelona sp. A (P)	1	[illegible]	[illegible]	2	63.5
Syllidae (undet.) B (P)	1	[illegible]	[illegible]	2	63.5
Protodorvillea kefersteini (P)	1	[illegible]	[illegible]	2	63.5
Magelona sp. (Day 73) (P)	1	[illegible]	[illegible]	2	63.5
Cirratulidae (undet.) B (P)	1	[illegible]	[illegible]	2	63.5
Nephtys incisa (P)	1	[illegible]	[illegible]	2	63.5
Sphaerodoropsis costarum oculata (P)	1	[illegible]	[illegible]	2	63.5
Scoloplos sp. (P)	1	[illegible]	[illegible]	2	63.5
Diopatra cuprea (P)	1	[illegible]	[illegible]	2	63.5
Poecilochaetus sp. (P)	1	[illegible]	[illegible]	2	63.5
Aricidea sp. A (P)	1	[illegible]	[illegible]	2	63.5
Eunicidae (undet.) (P)	1	[illegible]	[illegible]	2	63.5
Sigambra bassi (P)	1	[illegible]	[illegible]	2	63.5
Chrysopetalidae (undet.) (P)	1	[illegible]	[illegible]	2	63.5

Table 50. Abundance [illegible] in grab collections of [illegible] (DS28). A = Amphipoda; B = Bivalvia; C = Cumacea; D = Decapoda; E = Echinodermata; G = Gastropoda; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipuncula.

	DS28				Rank
Species	Total Number	Number/0.1m² x̄	Number/0.1m² SD	Estimated Number/m²	by Number
Brania pusilla (P)	187	31.2	19.3	312	1
Exogone dispar (P)	92	15.3	2.5	153	2
Tiron trombasis (C)	44	7.3	2.5	73	3
Bathyporeia parkeri (A)	28	4.7	4.9	47	4.5
Nemertea (P)	28	4.7	1.9	47	4.5
Natantia (undet.)	27	4.5	4.3	45	6.5
Pseudoplatyischnopus floridana (A)	27	4.5	4.0	45	6.5
Trichophoxus epistomus (A)	25	4.2	5.0	42	8.0
Acanthohaustorius sp. (A)	21	3.5	2.4	35	9.0
Nephtys picta (P)	19	3.2	2.0	32	10.5
Nephtys similis (P)	19	3.2	1.2	32	10.5
Lepidasthenia longicirrata (P)	18	3.0	1.7	30	12.0
Mediomastus ambiseta (P)	18	3.0	1.7	30	12.0
Tellina versicolor (M)	17	2.8	1.5	28	13.0
Ampelisca abdita (A)	17	2.8	1.5	28	13.0
Nemertina (undet.) (A)	15	2.5	1.4	25	14.5
Parahaustorius cf. longimerus (A)	15	2.5	1.4	25	14.5
Acanthura magnifica (P)	14	2.3	1.4	23	16.0
Strigilla mirabilis (M)	14	2.3	1.4	23	16.0
Nematoda (undet.)	13	2.2	0.6	22	18.0
Neomysis americana (My)	12	2.0	2.2	20	19.0
Nuculana acuta (M)	5	0.8	1.2	8	21.5
Anachis lafresnayi (G)	5	0.8	1.2	8	21.5
Solemya velum (M)	5	0.8	0.8	8	21.5
Spio pettiboneae (P)	5	0.8	0.8	8	21.5
Glycera sp. (P)	3	0.5	0.5	5	26.5
Diastylis sp. (C)	3	0.5	0.9	5	26.5
Mysella planata (M)	3	0.5	0.9	5	26.5
Ervilia concentrica (M)	3	0.5	0.5	5	26.5
Tellina (undet.)	3	0.5	0.9	5	26.5
Pionosyllis sp. (P)	3	0.5	0.9	5	26.5
Pagurus longicarpus (D)	2	0.3	0.5	3	33.0
Gammarus mucronatus (A)	2	0.3	0.5	3	33.0
Cumacea (undet.) (C)	2	0.3	0.9	3	33.0
Mysidopsis bigelowi (My)	2	0.3	0.9	3	33.0
Mellita quinquiesperforata (E)	2	0.3	0.5	3	33.0
Ophiuroidea (undet.) (B E)	2	0.3	0.5	3	33.0
Aricidea cerrutii (P)	2	0.3	0.5	3	33.0
Upogebia stephensoni (D)	1	0.2	0.4	2	50.0
Barantolla lineata (P)	1	0.2	0.4	2	50.0
Erichthonius brasiliensis (A)	1	0.2	0.4	2	50.0
Stomatopoda (undet.)	1	0.2	0.4	2	50.0
Cylichna verrilli (G)	1	0.2	0.4	2	50.0
Oniscoidea sp. A (I)	1	0.2	0.4	2	50.0
Turbonilla sp. D (M)	1	0.2	0.4	2	50.0
Mitrella lunata (M)	1	0.2	0.4	2	50.0
Abra aequalis (M)	1	0.2	0.4	2	50.0
Terebra concava (M)	1	0.2	0.4	2	50.0
Crassinella lunulata (M)	1	0.2	0.4	2	50.0
Aspidosiphon spinalis (S)	1	0.2	0.4	2	50.0
Goniadides carolinae (P)	1	0.2	0.4	2	50.0
Axiothella rubrocincta (P)	1	0.2	0.4	2	50.0
Aricidea suecica (P)	1	0.2	0.4	2	50.0
Ancistrosyllis jonesi (P)	1	0.2	0.4	2	50.0
Nephtys incisa (P)	1	0.2	0.4	2	50.0
Syllidae (undet.) A (P)	1	0.2	0.4	2	50.0
Terebellidae (undet.) A (P)	1	0.2	0.4	2	50.0
Spiophanes bombyx (P)	1	0.2	0.4	2	50.0
Paraonidae (undet.) A (P)	1	0.2	0.4	2	50.0
Scoletoma texana (P)	1	0.2	0.4	2	50.0
Sphaerosyllis madeirae (P)	1	0.2	0.4	2	50.0
Leanira hasei (P)	1	0.2	0.4	2	50.0
Chrysopetalidae (undet.) (P)	1	0.2	0.4	2	50.0
Syllis spongicola (P)	1	0.2	0.4	2	50.0
Lumbrinerides acuta (P)	1	0.2	0.4	2	50.0

Table 71. Abundance of macroinvertebrate species in grab collections from station DS29. (A = Amphipoda; B = Brachiopoda; C = Cumacea; Ch = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Echiuroidea; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipunculida; T = Tanaidacea).

	DS29				
Species	Total Number	Number/0.1m² $\bar{x}$	SD	Estimated Number/m²	Rank by Number
Branchiostoma caribaeum (Ch)	266	53.2	37.1	532	1.0
Nematoda (undet.)	154	30.8	34.7	308	2.0
Trichophoxus floridanus (A)	78	15.6	9.0	156	3.0
Goniadides carolinae (P)	58	11.6	11.5	116	4.0
Spiophanes bombyx (P)	52	10.4	2.9	104	5.0
Bathyporeia parkeri (A)	38	7.6	4.2	76	6.5
Aspidosiphon spinalis (S)	38	7.6	8.1	76	6.5
Cyathura burbanki (I	35	7.0	7.6	70	8.0
Pseudoleptochinopus floridanus (A)	27	5.4	3.2	54	10.0
Tellina proxima (M)	27	5.4	3.3	54	10.0
Nephtys picta (P)	27	5.4	2.4	54	10.0
Oligochaeta (undet.)	24	4.8	5.4	48	12.0
Copulidria jonai (Ec)	23	4.6	3.2	46	13.0
Aspidosiphon misakiensis (S)	20	4.0	2.0	40	14.0
Onuphis eremita (P)	19	3.8	2.5	38	15.0
Armandia maculata (P)	17	3.4	3.1	34	16.0
Tiron tropakis (A)	15	3.0	4.6	30	17.5
Strigilla mirabilis (M)	15	3.0	3.7	30	17.5
Acanthohaustorius sp. (A)	14	2.8	2.8	28	19.5
Ervilia concentrica (M)	14	2.8	2.6	28	19.5
Ruffleminges sp. (A)	12	2.4	2.1	24	22.5
Turbellaria (undet.)	12	2.4	1.9	24	22.5
Nemertina (undet.) A	11	2.2	1.1	22	24.0
Amphipoda (undet.) A	10	2.0	2.3	20	25.5
Apanthura magnifica (I)	10	2.0	1.4	20	25.5
Discoporella umbellata (Ec)	10	2.0	1.6	20	25.5
Amphistrysllis finesi (P)	10	2.0	2.5	20	25.5
Ostracoda (undet.)	9	1.8	1.6	18	28.5
Mysera oxycephala (P)	9	1.8	1.9	18	28.5
Mayerstylis smithi (C)	8	1.6	1.1	16	31.0
Hesionidae (undet.) A (P)	8	1.6	1.8	16	31.0
Prionospio cristata (P)	8	1.6	1.8	16	31.0
Trichophoxus epistomus (A)	7	1.4	1.1	14	34.5
Pirrongorus lyriformis (P)	7	1.4	1.7	14	34.5
Nephtys incisa (P)	7	1.4	1.1	14	34.5
Aricidea cerruti (P)	6	1.2	1.3	12	38.0
Lilieborgia sp. (A	5	1.0	1.2	10	41.5
Ophiuroidea (undet.) B (E)	5	1.0	0.7	10	41.5
Semele nuculoides (M)	5	1.0	1.4	10	41.5
Axiothella mucosa (P)	5	1.0	0.7	10	41.5
Syllis regulata carolinae (P)	5	1.0	2.2	10	41.5
Phyllodoce arenae (P)	5	1.0	1.7	10	41.5
Magelona rosea (P)	5	1.0	1.0	10	41.5
Chrysopetalidae (undet.) (P)	5	1.0	1.2	10	41.5
Isolda pulchella (P)	5	1.0	1.7	10	41.5
Synchelidium americanum (A)	4	0.8	1.3	8	45.5
Lumbrineris latreilli (P)	4	0.8	0.4	8	45.5
Onuphis nebulosa (P)	4	0.8	0.8	8	45.5
Spio pettiboneae (P)	4	0.8	1.8	8	45.5
Sigambra bassi (P)	4	0.8	0.4	8	45.5
Acuminodes marigueiensis (P)	4	0.8	1.3	8	45.5
Bivalvia (undet.) M	3	0.6	0.8	6	51.0
Mellita quinquiesperforata (E)	3	0.6	0.5	6	51.0
Axonia fistiformis (P)	3	0.6	0.4	6	51.0
Symbrachis albini (P)	3	0.6	1.1	6	51.0
Sphaerosyllis riodejani (P)	2	0.4	0.5	4	57.0
Leptosynapta roulinae (E)	2	0.4	0.5	4	57.0
Pagurus longicarpus (D)	2	0.4	0.5	4	57.0
Ampelisca verrilli (A)	2	0.4	0.5	4	57.0
Exhalanthura brasiliensis (I)	2	0.4	0.5	4	57.0
Diastylis vermiculata (C)	2	0.4	0.5	4	57.0
Loimia ferox (P)	2	0.4	0.5	4	57.0

Table 31, cont.

Species	Total Number	Number/0.1m² $\bar{X}$	SD	Estimated Number/m²	Rank by Number
[illegible]	1	0.2	0.4	2	88.5
Carazziella oculata (P)	1	0.2	0.4	2	88.5
Cirrophorus branchiatus (P)	1	0.2	0.4	2	88.5
Polycirrus eximius (P)	1	0.2	0.4	2	88.5
Prionospio cirrobranchiata (P)	1	0.2	0.4	2	88.5
Scoloplos sp. (P)	1	0.2	0.4	2	88.5
Caulleriella killariensis (P)	1	0.2	0.4	2	88.5
Prionospio lavi (P)	1	0.2	0.4	2	88.5
Pio. syllis sp. (P)	1	0.2	0.4	2	88.5
Tra[illegible]ypeneus constrictus (P)	1	0.2	0.4	2	88.5
Euc[illegible]amus praelongus (P)	1	0.2	0.4	2	88.5
Albunea paretii (P)	1	0.2	0.4	2	88.5
Ampelisca vadorum (A)	1	0.2	0.4	2	88.5
Serbarrla sp. (A)	1	0.2	0.4	2	88.5
[illegible]bola [illegible]ndet. (A)	1	0.2	0.4	2	88.5
Pr[illegible]chiastylis sp. [illegible]mann[illegible] (A)	1	0.2	0.4	2	88.5
[illegible]erilla nigra (P)	1	0.2	0.4	2	88.5
[illegible]ides (P)	1	0.2	0.4	2	88.5
[illegible]ella sp. (A)	1	0.2	0.4	2	88.5
[illegible]matoneis [illegible]	1	0.2	0.4	2	88.5
[illegible]ogaster [illegible]	1	0.2	0.4	2	88.5
[illegible]	1	0.2	0.4	2	88.5
[illegible]	1	0.2	0.4	2	88.5
[illegible]ilidae [illegible] (M)	1	0.2	0.4	2	88.5
[illegible]	1	0.2	0.4	2	88.5
[illegible]ella [illegible] (M)	1	0.2	0.4	2	88.5
[illegible]ella [illegible]	1	0.2	0.4	2	88.5
[illegible]	1	0.2	0.4	2	88.5
Platyx [illegible] (P)	1	0.2	0.4	2	88.5
[illegible]mia [illegible] (P)	1	0.2	0.4	2	88.5
Ar[illegible]ella [illegible] (P)	1	0.2	0.4	2	88.5
[illegible] [illegible] (P)	1	0.2	0.4	2	88.5
[illegible] [illegible] [illegible] (P)	1	0.2	0.4	2	88.5
Nemertina [illegible]	1	0.2	0.4	2	88.5
Paraonis sp. (P)	1	0.2	0.4	2	88.5
Nereis succinea (P)	1	0.2	0.4	2	88.5
Neanthes [illegible]ata (P)	1	0.2	0.4	2	88.5
Nephtys [illegible] (P)	1	0.2	0.4	2	88.5
Nagelma papillicornis (P)	1	0.2	0.4	2	88.5
Ampelisca sp. A (A)	1	0.2	0.4	2	88.5
Hemipodus roseus (P)	1	0.2	0.4	2	88.5
Syllis hyalina (P)	1	0.2	0.4	2	88.5
Lumbrineriopsis [illegible]ata (P)	1	0.2	0.4	2	88.5
Polygordius [illegible] (P)	1	0.2	0.4	2	88.5
Paraonis gracilis (P)	1	0.2	0.4	2	88.5
Petaloproctus borealis (P)	1	0.2	0.4	2	88.5
Malacoceros indicus (P)	1	0.2	0.4	2	88.5

Table 12. Abundance of major invertebrate species in grab collections from station DS30. (A = Amphipoda; [illegible] = Cumacea; Ce = Cephalochordata; Cn = Cnidaria; D = Decapoda; E = Echinodermata; [illegible] = [illegible]; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipunculida; T = Tanaidacea).

DS30

Species	Total Number	Number 0.1m² $\bar{x}$	Number 0.1m² SD	Estimated Number m²	Rank by Number
Aspidosiphon spinalis (S)	1013	202.6	89.6	2026	1.0
Branchiostoma caribaeum (Ce)	399	79.8	27.5	[illegible]	2.0
Goniadides carolinae (P)	173	32.6	6.7	[illegible]	3.0
Syllis regulata carolinae (P)	138	27.6	16.9	276	4.0
Sipunculida (undet.)	102	20.4	14.8	204	5.0
Calyptraea centralis (M)	101	20.2	10.5	202	6.0
Glyptoplax smithii (D)	89	17.8	14.3	178	7.0
Chrysopetalidae (undet.) (P)	85	17.0	8.4	170	8.0
Prionospio cristata (P)	83	16.6	7.4	166	9.0
[illegible] (E)	[illegible]	15.4	3.9	154	[illegible]
Exogone dispar (P)	68	13.6	5.4	[illegible]	[illegible]
Cirratulidae (undet. B) (P)	65	13.0	5.2	[illegible]	[illegible]
Tiron tropakis (A)	60	12.0	7.3	[illegible]	[illegible]
Spiophanes bombyx (P)	55	11.0	5.0	[illegible]	[illegible]
Photis sp. A	48	9.6	9.0	96	[illegible]
Trichophoxus floridanus (A)	46	9.2	11.0	[illegible]	[illegible]
Nematoda (undet.)	45	9.0	4.1	90	[illegible]
Crassinella lunulata (M)	39	7.8	3.0	78	[illegible]
Hemipodus roseus (P)	38	7.6	2.6	76	19.0
Pelecypoda (undet.)	37	7.4	6.1	74	20.0
Lasmineira bilobata (P)	36	7.2	9.6	72	21.0
Leptochelia rapax (T)	34	6.8	6.4	68	22.0
Polyplacophora (undet. A) (M)	33	6.6	3.0	66	23.0
Minuspio cirrifera (P)	32	6.4	6.9	64	24.5
Hydroides protulicola (P)	32	6.4	1.7	64	24.5
[illegible] sp. A	31	6.2	3.7	62	26.5
Eulalia sanguinea (P)	31	6.2	4.5	62	26.5
Oligochaeta (undet.)	30	6.0	2.2	60	28.0
Axiothella mucosa (P)	29	5.8	4.1	58	29.5
Prionospio cirrobranchiata (P)	29	5.8	1.6	58	29.5
Golfingia sp. A (S)	27	5.4	7.1	54	31.5
Nereis [illegible] (P)	27	5.4	1.8	54	31.5
Aspidosiphon misakiensis (S)	25	5.0	5.9	50	33.0
Chama macerophylla (M)	24	4.8	4.1	48	34.0
Eurydice littoralis (I)	23	4.6	3.6	46	35.5
[illegible] (P)	23	4.6	4.7	46	35.5
Golfingia sp. [illegible] (S)	21	4.2	4.0	42	37.0
Ervilia concentrica (M)	20	4.0	4.5	40	38.0
[illegible] sp. (A)	19	3.8	[illegible]	38	39.0
Lembos unicornis (A)	18	3.6	5.5	36	41.5
[illegible] sp. A (A)	18	3.6	3.0	36	41.5
[illegible] eximius (P)	18	3.6	3.0	36	41.5
[illegible] vittata (P)	18	3.6	3.8	36	41.5
[illegible] longicarpus (D)	17	3.4	3.4	34	44.5
[illegible]mastus californiensis (P)	17	3.4	2.3	34	44.5
Isopoda (undet. A)	15	3.0	2.3	30	47.5
[illegible] nebulosa (P)	15	3.0	1.2	30	47.5
[illegible] (P)	15	3.0	2.1	30	47.5
[illegible] (P)	15	3.0	5.0	30	47.5
[illegible] (P)	14	2.8	2.8	28	50.5
Polyplacophora (undet. B) (M)	14	2.8	1.6	28	50.5
[illegible]chaeta (undet.)	13	2.6	1.8	26	53.0
[illegible] (P)	13	2.6	2.1	26	53.0
[illegible] (P)	13	2.6	1.9	26	53.0
[illegible] (undet. A)	12	2.4	1.8	24	55.5
[illegible] minuta (P)	12	2.4	1.9	24	55.5
[illegible]	[illegible]	2.2	[illegible]	22	59.5
[illegible] (undet.)	[illegible]	2.2	[illegible]	22	59.5
[illegible]	[illegible]	2.2	[illegible]	22	[illegible]
[illegible]	[illegible]	2.2	[illegible]	22	59.5
[illegible]	[illegible]	[illegible]	[illegible]	22	59.5
[illegible] (undet.)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (undet.)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (undet.)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 72. (Cont.)

	PS30				
Species	Total Number	Number/0.1m² $\bar{x}$	SD	Estimated Number/m²	Rank by Number
Semele bellastriata (M)	10	2.0	1.7	20	65.0
Hesionidae (undet.) A (P)	10	2.0	1.4	20	65.0
Owenia fusiformis (P)	10	2.0	1.7	20	65.0
Carinobatea carinata (A)	9	1.8	1.5	18	69.5
Magelona sp. (Day 73) (P)	9	1.8	1.3	18	69.5
Nephtys squamosa (P)	9	1.8	1.3	18	69.5
Schistomeringos rudolphi (P)	9	1.8	4.0	18	69.5
Ampelisca vadorum (A)	8	1.6	1.1	16	72.5
Pisione remota (P)	8	1.6	2.1	16	72.5
Cumacea (undet.) H	7	1.4	1.5	14	75.0
Crassinella martinicensis (M)	7	1.4	1.5	14	75.0
Parapionosyllis longicirrata (P)	7	1.4	1.5	14	75.0
Amphipoda (undet.) A	6	1.2	1.3	12	79.0
Laevicardium pictum (M)	6	1.2	0.8	12	79.0
Trypanosyllis sp. (P)	6	1.2	2.2	12	79.0
Polydora sp. A (P)	6	1.2	1.8	12	79.0
Aonides mayaguezensis (P)	6	1.2	1.3	12	79.0
Sicyonia typica (D)	5	1.0	1.2	10	84.0
Ophiophragmus sp. A (E)	5	1.0	1.2	10	84.0
Semele nuculoides (M)	5	1.0	1.0	10	84.0
Chaetopleura apiculata (M)	5	1.0	2.2	10	84.0
Syllis cornuta (P)	5	1.0	1.4	10	84.0
Alpheus formosus (D)	4	0.8	1.1	8	94.5
Cerpirnia sp. (A)	4	0.8	1.3	8	94.5
Oxyurostylis smithi (C)	4	0.8	1.1	8	94.5
Lytechinus variegatus (E)	4	0.8	0.8	8	94.5
Ophiuroidea (undet.) B (E)	4	0.8	0.8	8	94.5
Melanellidae (undet.) (M)	4	0.8	1.8	8	94.5
Anachis avara (M)	4	0.8	1.1	8	94.5
Ostrea equestris (M)	4	0.8	0.6	8	94.5
Abra aequalis (M)	4	0.8	0.8	8	94.5
Unknown Taxon B	4	0.8	1.3	8	94.5
Harmothoe sp. B (Day) (P)	4	0.8	0.8	8	94.5
Psammolyce ctenidophora (P)	4	0.8	0.4	8	94.5
Protodorvillea kefersteini (P)	4	0.8	1.3	8	94.5
Cirrophorus lyriformis (P)	4	0.8	1.1	8	94.5
Polydora sp. B (P)	4	0.8	0.8	8	94.5
Arabella mutans (P)	4	0.8	0.8	8	94.5
Majidae (undet.) (D)	3	0.6	0.9	6	108.0
[illegible]omene sp. (A)	3	0.6	0.9	6	108.0
Ophiuroidea (undet.) C (E)	3	0.6	1.3	6	108.0
Dissodactylus mellitae (D)	3	0.6	0.9	6	108.0
Tellina probrina (M)	3	0.6	0.9	6	108.0
Vermiliopsis annulata (P)	3	0.6	0.9	6	108.0
Scalibregma inflatum (P)	3	0.6	0.9	6	108.0
Platynereis dumerilii (P)	3	0.6	0.9	6	108.0
Armandia maculata (P)	3	0.6	0.5	6	108.0
Lysidice ninetta (P)	3	0.6	[illegible]	6	108.0
Petaloproctus socialis (P)	3	0.6	0.4	6	108.0
Latreutes parvulus (D)	2	0.4	[illegible]	4	123.0
[illegible] (A)	2	0.4	0.5	4	123.0
Campylaspis sp. (C)	2	0.4	0.9	4	123.0
Pseudoplatyischnopus floridanus (A)	2	0.4	0.5	4	123.0
[illegible] (T)	2	0.4	0.4	4	123.0
[illegible]	2	0.4	0.9	4	123.0
[illegible] (undet.) (P)	2	0.4	0.5	4	123.0
[illegible] (undet.)	2	0.4	0.5	4	123.0
[illegible]	2	0.4	0.5	4	123.0
[illegible]	2	0.4	0.4	4	123.0
[illegible]	2	0.4	0.5	4	123.0
[illegible]	2	0.4	0.5	4	123.0
[illegible]	2	0.4	0.5	4	123.0
[illegible]	2	0.4	[illegible]	4	123.0
[illegible]	[illegible]	0.4	[illegible]	4	[illegible]
[illegible] (P)	[illegible]	0.4	[illegible]	4	123.0
[illegible] (P)	[illegible]	0.4	[illegible]	4	[illegible]
[illegible]	[illegible]	0.4	[illegible]	4	[illegible]
[illegible] sp.	[illegible]	[illegible]	[illegible]	4	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 72. (Cont.)

Species	Total Number	Number/0.1m² X	Number/0.1m² SD	Est. mate Number m²	Number
Ebalia carinosa (D)	1	0.2	0.4	2	154.0
Pinnixa sp. A (D)	1	0.2	0.4	2	154.0
Majidae (undet.) B (D)	1	0.2	0.4	2	154.0
Heterocrypta granulata (D)	1	0.2	0.4	2	154.0
Brachyura (undet.) (D)	1	0.2	0.4	2	154.0
Portunidae (undet.) (D)	1	0.2	0.4	2	154.0
Processa hemphilli (D)	1	0.2	0.4	2	154.0
Maera williamsi (A)	1	0.2	0.4	2	154.0
Cyclaspis varians (C)	1	0.2	0.4	2	154.0
Lembos smithi (A)	1	0.2	0.4	2	154.0
Amphipoda (undet.) G	1	0.2	0.4	2	154.0
Ptilola serrata (A)	1	0.2	0.4	2	154.0
Podoceridae (undet.) (A)	1	0.2	0.4	2	154.0
Argissa sp. (A)	1	0.2	0.4	2	154.0
Ampharetidae (undet.) (E)	1	0.2	0.4	2	154.0
Natica pusilla (M)	1	0.2	0.4	2	154.0
Spiophanes multistriatum (M)	1	0.2	0.4	2	154.0
Nuculoma pectinata (M)	1	0.2	0.4	2	154.0
Polygordiopsis (undet.) (P) (M)	1	0.2	0.4	2	154.0
Nudibranchia (undet.) (M)	1	0.2	0.4	2	154.0
Anomia simplex (M)	1	0.2	0.4	2	154.0
Thiana sp. (M)	1	0.2	0.4	2	154.0
Yoldia sp. (M)	1	0.2	0.4	2	154.0
Terebellides stroemi (P)	1	0.2	0.4	2	154.0
Pinnotheridae (undet.)	1	0.2	0.4	2	154.0
Sabella pavonina (P)	1	0.2	0.4	2	154.0
Serpulidae (undet.) A (P)	1	0.2	0.4	2	154.0
Pomatoceros americanus (P)	1	0.2	0.4	2	154.0
Harpinia sp. B (Har.) (P)	1	0.2	0.4	2	154.0
Nicolea sp. C (P)	1	0.2	0.4	2	154.0
Hydroides uncinata (P)	1	0.2	0.4	2	154.0
Thelepus cincinnatus (P)	1	0.2	0.4	2	154.0
Streptosyllis pettiboneae (P)	1	0.2	0.4	2	154.0
Exogone lourei (P)	1	0.2	0.4	2	154.0
Typosyllis hyalina (P)	1	0.2	0.4	2	154.0
Brania arminensis (P)	1	0.2	0.4	2	154.0
Streptosyllis bidentata (P)	1	0.2	0.4	2	154.0
Magelona papillicornis (P)	1	0.2	0.4	2	154.0
Nereis succinea (P)	1	0.2	0.4	2	154.0
Nereis zonata (P)	1	0.2	0.4	2	154.0
Lumbrinereis tenuis (P)	1	0.2	0.4	2	154.0

Table [illegible]. Abundance of macroinvertebrate species in grab collections from station DS31. A = Amphipoda; C = Cumacea; Ce = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipunculida; T = Tanaidacea.

DS31

Species	Total Number	Number 0.1m⁻² x̄	Number 0.1m⁻² SD	Estimated Number m⁻²	Rank by Number
Branchiostoma caribaeum (Ce)	311	77.8	32.8	778	1.0
Aspidosiphon spinalis (S)	224	56.0	23.1	560	2.0
Sipuncula (undet.)	60	15.0	8.8	150	3.0
Trichophoxus floridanus (A)	45	11.2	5.2	112	4.0
Calyptraea centralis (M)	28	7.0	6.9	70	5.0
Glyptoplax smithii (D)	23	5.8	4.3	58	6.5
Goniadides carolinae (P)	23	5.8	2.2	58	6.5
Polyplacophora (undet.) A (M)	22	5.5	3.3	55	8.0
Syllis regulata carolinae (P)	17	4.2	1.0	42	9.0
Eurydice littoralis (I)	16	4.0	4.0	40	10.0
Isopoda (undet.) A	15	3.8	1.7	38	11.5
Tiron tropakis (A)	15	3.8	3.0	38	11.5
Nematoda (undet.)	14	3.5	2.6	35	13.0
Cupuladria doma (Ec)	11	2.8	3.1	28	14.5
Crassinella lunulata (M)	11	2.8	3.2	28	14.5
Golfingia sp. A (S)	10	2.5	2.4	25	16.0
Nephtys picta (P)	9	2.2	1.7	22	17.0
Chama macerophylla (M)	8	2.0	0.8	20	18.5
Abra aequalis (M)	8	2.0	1.4	20	18.5
Pelecypoda (undet.) (M)	7	1.8	1.5	18	20.0
Ostracoda (undet.)	6	1.5	0.6	15	22.0
Semele nuculoides (M)	6	1.5	0.6	15	22.0
Ervilia concentrica (M)	6	1.5	1.3	15	22.0
Pagurus longicarpus (D)	5	1.2	1.0	12	26.0
Liljeborgia sp. (A)	5	1.2	1.5	12	26.0
Chaetopleura apiculata (M)	5	1.2	1.0	12	26.0
Golfingia sp. B (S)	5	1.2	1.0	12	26.0
Hemipodus roseus (P)	5	1.2	1.0	12	26.0
Amphipoda (undet.) A	4	1.0	1.4	10	31.0
Leptochelia rapax (T)	4	1.0	1.2	10	31.0
Campylaspis sp. (C)	4	1.0	1.4	10	31.0
Semele bellastriata (M)	4	1.0	1.4	10	31.0
Sigalion arenicola (P)	4	1.0	1.4	10	31.0
Pinnixa retinens (D)	3	0.8	1.0	8	36.5
Arene sp. (M)	3	0.8	1.0	8	36.5
Aspidosiphon misakiensis (S)	3	0.8	1.5	8	36.5
Onuphis nebulosa (P)	3	0.8	1.0	8	36.5
Hydroides protulicola (P)	3	0.8	0.5	8	36.5
Exogone dispar (P)	3	0.8	1.0	8	36.5
Synchelidium americanum (A)	2	0.5	0.6	5	48.0
Lembos unicornis (A)	2	0.5	1.0	5	48.0
Maera caroliniana (A)	2	0.5	0.6	5	48.0
Oxyurostylis smithi (C)	2	0.5	1.0	5	48.0
Pseudoplatyishnopus floridanus (A)	2	0.5	0.6	5	48.0
Leptognatha caeca (T)	2	0.5	1.0	5	48.0
Apanthura magnifica (I)	2	0.5	0.6	5	48.0
Ophiuroidea (undet.) B (E)	2	0.5	0.6	5	48.0
Tellina texana (M)	2	0.5	0.6	5	48.0
Corbula barrattiana (M)	2	0.5	1.0	5	48.0
Mitrella lunata (M)	2	0.5	0.6	5	48.0
Chione sp. (M)	2	0.5	0.6	5	48.0
Pseudeurythoe ambigua (P)	2	0.5	1.0	5	48.0
Macroclymene zonalis (P)	2	0.5	0.6	5	48.0
Nephtys incisa (P)	2	0.5	0.6	5	48.0
[illegible] ornata (P)	2	0.5	0.6	[illegible]	48.0
[illegible] (undet.)	2	0.5	0.6	[illegible]	48.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	Total Number	Number/0.1m² $\bar{X}$	Number/0.1m² SD	Estimated Number/m²	Rank by Number
[illegible]	1	0.2	0.5	2	76.0
[illegible]	1	0.2	0.5	2	76.0
[illegible]	1	0.2	0.5	2	76.0
[illegible] (P)	1	0.2	0.5	2	76.0
Nemertina [illegible]	1	0.2	0.5	2	76.0
[illegible]	1	0.2	0.5	2	76.0
[illegible] (M)	1	0.2	0.5	2	76.0
Tellina probrina (M)	1	0.2	0.5	2	76.0
Crassinella martinicensis (M)	1	0.2	0.5	2	76.0
Melanellidae (undet.) (M)	1	0.2	0.5	2	76.0
Glycymeris pectinata (M)	1	0.2	0.5	2	76.0
Pol[illegible] (undet.) [illegible]	1	0.2	0.5	2	76.0
Marginella aureocincta (M)	1	0.2	0.5	2	76.0
Anadara transversa (M)	1	0.2	0.5	2	76.0
Argopecten gibbus (M)	1	0.2	0.5	2	76.0
Atrina seminuda (M)	1	0.2	0.5	2	76.0
Ophelia denticulata (P)	1	0.2	0.5	2	76.0
[illegible] sp. (P)	1	0.2	0.5	2	76.0
[illegible] (P)	1	0.2	0.5	2	76.0
[illegible] (P)	1	0.2	0.5	2	76.0
Pomatoceros americanus (P)	1	0.2	0.5	2	76.0
Nereis riisei (P)	1	0.2	0.5	2	76.0
[illegible] sp. A [illegible] (P)	1	0.2	0.5	2	76.0
Magelona sp. (Day [illegible]) (P)	1	0.2	0.5	2	76.0
Notomastus latericeus (P)	1	0.2	0.5	2	76.0
[illegible] (P)	1	0.2	0.5	2	76.0
[illegible] (P)	1	0.2	0.5	2	76.0
[illegible] sp. B (P)	1	0.2	0.5	2	76.0
[illegible] sp. (P)	1	0.2	0.5	2	76.0
Arabella mutans (P)	1	0.2	0.5	2	76.0
Lysidice ninetta (P)	1	0.2	0.5	2	76.0
Phyllodoce arenae (P)	1	0.2	0.5	2	76.0
Polynoidae (undet.) (P)	1	0.2	0.5	2	76.0
Petaloproctus socialis (P)	1	0.2	0.5	2	76.0

Table [illegible]. Abundance of macroinvertebrate species in grab [illegible] from station OS12. (A = Amphipoda; Br = Brachiopoda; C = Cumacea; Ce = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Echiurida; I = Isopoda; M = Mollusca; Mo = Miscellanea; P = Polychaeta; S = Sipunculida; T = Tanaidacea).

OS12

Species	Total Number	Number/0.1m² x̄	Number/0.1m² SD	Estimated Number m²	Rank by Number
Aphelochaeta paribunt (P)	486	47.6	26.1	871	1.
Aspidosiphon spinalis (S)	89	11.8	9.5	118	2.
Chaetozone setosa (A)	57	11.4	4.7	114	3.
Nemidactus ruseus (P)	44	9.8	5.4	98	4.
Nephtys hystricis (P)	33	7.0	4.1	70	5.
Spiophanes bombyx (P)	32	6.4	2.8	64	6.5
Syllis regulata carolinae (P)	32	6.4	2.7	64	6.5
Ampelisca vadorum (A)	24	4.8	4.0	48	8.
Nematoda undet.	23	4.6	3.8	46	9.
Ophiodromus pugettensis (P)	22	4.4	1.5	44	10.
Prionospio steenstrupi (P)	21	4.2	3.4	42	11.
Tharyx parvus (P)	18	3.6	3.8	36	12.
Tritodynamia horvathi (P)	17	3.4	1.7	34	13.5
Ophiura sarsi (E)	17	3.4	2.1	34	13.5
Ampelisca macrocephala (A)	15	3.0	1.6	30	15.
Amphiodia urtica (E)	14	2.8	3.1	28	17.
Nephtys caecoides (P)	14	2.8	5.7	28	17.
Scalibregma inflatum (P)	14	2.8	1.6	28	17.
Thyasira gouldi (M)	13	2.6	1.8	26	19.
Aricidea (Acmira) catherinae (P)	12	2.4	2.3	24	20.
Cirratulus cirratus (P)	11	2.2	2.8	22	21.
Nephtys caecoides (P)	10	2.0	2.2	20	22.
Pinnixa faba (D)	9	1.8	1.8	18	24.5
Pinnixa tubicola (D)	9	1.8	1.5	18	24.5
Mediomastus californiensis (P)	9	1.8	1.2	18	24.5
Nucula tenuis (M)	9	1.8	1.5	18	24.5
Pseudoleptosynapta inhaerens (E)	8	1.6	2.3	16	28.5
Eudorella pacifica (C)	8	1.6	1.3	16	28.5
Axinopsida serricata (M)	8	1.6	2.2	16	28.5
Paraonidae (undet.) A (P)	8	1.6	2.1	16	28.5
Heterophoxus oculatus (A)	7	1.4	1.5	14	31.5
Amphideutopus oculatus (P)	7	1.4	1.4	14	31.5
Nemertina undet. A	6	1.2	0.8	12	34.
Axiothella rubrocincta (P)	6	1.2	0.8	12	34.
Eohaustorius estuarius (A)	6	1.2	2.7	12	34.
Astrorhiza (undet.)	5	1.0	1.2	10	38.
Palmyra pacifica (undet.) A (P)	5	1.0	1.2	10	38.
Tigriopus sp. 2 (C)	5	1.0	1.4	10	38.
Triconiella (undet.)	5	1.0	1.4	10	38.
Scalibregmides californiae (P)	5	1.0	1.0	10	38.
Lumbrineris luti (P)	4	0.8	1.0	8	43.
Nemertina undet. B	4	0.8	1.3	8	43.
Astyris gausapata (M)	4	0.8	1.1	8	43.
Tellina modesta (M)	4	0.8	0.8	8	43.
Crassinella martinicensis (M)	4	0.8	0.8	8	43.
Cumacea undet. A (C)	3	0.6	0.9	6	46.
Spiophanes (undet.) B (P)	3	0.6	0.5	6	46.5
Goniadidae (undet.) (P)	2	0.4	0.9	4	52.5
Aetor scripta granulata (P)	2	0.4	0.5	4	52.5
Guillemotia sp. A (P)	2	0.4	0.9	4	52.5
Lilljeborgia sp. A (A)	2	0.4	0.5	4	52.5
Spiophanes bombyx (P)	2	0.4	0.5	4	52.5
Turbellaria (undet.)	2	0.4	0.5	4	52.5
Heteromastus filiformis (P)	2	0.4	0.5	4	52.5
Terebellidae (undet.) (P)	2	0.4	0.5	4	52.5
Amphiodia urtica (E)	1	0.2	0.5	2	57.
Cossura pygodactylata (P)	1	0.2	0.5	2	57.
Aricidea (undet.) (P)	1	0.2	0.5	2	57.

Table [illegible]. (Cont.)

Species	Total Number	Number 0.1m² $\bar{x}$	SD	Estimated Number m²	Rank Number
[illegible] smithi (P)	1	0.2	0.4	2	73.5
[illegible] (Undet.) (P)	1	0.2	0.4	2	73.5
[illegible] cemplifi (P)	1	0.2	0.4	2	73.5
[illegible] parians (P)	1	0.2	0.4	2	73.5
[illegible] serrati (A)	1	0.2	0.4	2	73.5
[illegible] smithi (C)	1	0.2	0.4	2	73.5
[illegible] stenops (P)	1	0.2	0.4	2	73.5
[illegible] aurantiaca (P)	1	0.2	0.4	2	73.5
[illegible] pyramidata (Br)	1	0.2	0.4	2	73.5
[illegible] candei (M)	1	0.2	0.4	2	73.5
[illegible] (Undet.) A (M)	1	0.2	0.4	2	73.5
[illegible] cinctipes (M)	1	0.2	0.4	2	73.5
[illegible] tuberculata (M)	1	0.2	0.4	2	73.5
[illegible] denticulata (P)	1	0.2	0.4	2	73.5
[illegible] sp. P	1	0.2	0.4	2	73.5
[illegible] vermicularis granulosa (P)	1	0.2	0.4	2	73.5
[illegible] ciliferi (P)	1	0.2	0.4	2	73.5
[illegible] sp. (Br, [illegible]) (M)	1	0.2	0.4	2	73.5
[illegible] littorii (P)	1	0.2	0.4	2	73.5
[illegible] (Undet.) B (P)	1	0.2	0.4	2	73.5
[illegible] (Undet.) B (P)	1	0.2	0.4	2	73.5
[illegible] fusiformis (P)	1	0.2	0.4	2	73.5
[illegible] maculosa (P)	1	0.2	0.4	2	73.5
[illegible] alata (P)	1	0.2	0.4	2	73.5
[illegible] dehiscens (P)	1	0.2	0.4	2	73.5
[illegible] filiformensis (P)	1	0.2	0.4	2	73.5
[illegible] (Undet.) (P)	1	0.2	0.4	2	73.5
[illegible] inermis (P)	1	0.2	0.4	2	73.5
[illegible] armillata (P)	1	0.2	0.4	2	73.5
[illegible] pisti (P)	1	0.2	0.4	2	73.5
[illegible] [illegible] (P)	1	0.2	0.4	2	73.5

[illegible]

[illegible] = [illegible]; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipuncula; T = Tunicata.

Species	Total Number	Number/0.1m² X̄	SD	Estimated Number/m²	Rank Order
[illegible] (A)	1375	275.	61.5	[illegible]	[illegible]
[illegible] (P)	102	20.4	[illegible]	204	[illegible]
[illegible] (undet.) (P)	97	19.4	22.6	194	3.0
Nematoda (undet.)	93	18.6	[illegible]	186	4.0
[illegible] (P)	68	13.6	[illegible]	136	5.5
[illegible] (P)	68	13.6	8.2	136	5.5
[illegible] (P)	61	12.2	6.3	122	8.0
Aspidosiphon spinalis (S)	61	12.2	5.8	122	8.0
Polycirrus eximius (P)	61	12.2	[illegible]	122	8.0
[illegible] (E)	54	10.8	8.6	108	10.5
Hemipodus roseus (P)	54	10.8	4.9	108	10.5
Tharyx marioni (P)	52	10.4	7.1	104	12.0
[illegible] (P)	51	10.2	[illegible]	102	13.0
Minuspio cirrifera (P)	50	10.0	4.9	[illegible]	14.0
Polyplacophora (undet.) (A, M)	44	8.8	[illegible]	88	15.0
[illegible] annulata (P)	39	7.8	[illegible]	78	16.0
Oligochaeta (undet.)	32	6.4	5.3	64	17.0
Polyplacophora (undet.) ([illegible], M)	21	4.2	4.2	42	18.0
Tellina sp. A (B)	20	4.0	4.5	40	19.0
[illegible] serrata (A)	19	3.8	1.6	38	20.5
[illegible] mucosa (P)	19	3.8	3.8	38	20.5
Calyptraea centralis (M)	18	3.6	3.6	36	22.5
[illegible] remota (P)	18	3.6	3.0	36	22.5
Tellina sp. B (B)	17	3.4	[illegible]	34	24.0
[illegible] (undet.) (P)	16	3.2	[illegible]	32	26.0
Eurydice littoralis (I)	16	3.2	[illegible]	32	26.0
Parapionosyllis longicirrata (P)	16	3.2	[illegible]	32	26.0
[illegible] (A)	14	2.8	[illegible]	28	28.0
Mysidopsis bigelowi (My)	13	2.6	[illegible]	26	30.0
Syllis ferruginea (P)	13	2.6	[illegible]	26	30.0
Travisia parva (P)	13	2.6	[illegible]	26	[illegible]
[illegible] (undet.)	12	2.4	[illegible]	24	33.0
[illegible] (P)	12	2.4	[illegible]	24	33.0
[illegible] (undet.) ([illegible], P)	12	2.4	[illegible]	24	33.0
[illegible] sp. B (Gr.) (P)	11	2.2	[illegible]	22	35.5
[illegible] (P)	11	2.2	[illegible]	[illegible]	35.5
Nemertina (undet.) (A)	[illegible]	[illegible]	[illegible]	[illegible]	37.5
Unknown Taxon B	[illegible]	[illegible]	[illegible]	[illegible]	37.5
Ostracoda (undet.)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (I)	[illegible]	[illegible]	[illegible]	[illegible]	42.5
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (M)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] sp. (A)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (I)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (A)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] (undet.) (A, P)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 75. (Cont.)

PS33

Species	Total Number	Number/0.1m² $\bar{x}$	Number/0.1m² SD	Estimated Number/m²	Rank by Number
Photis sp. (A)	4	0.8	1.3	8	62.0
Discoporella umbellata (E)	4	0.8	0.8	8	62.0
Onhelia denticulata (P)	4	0.8	0.8	8	62.0
Eulalia macroceros (P)	4	0.8	1.3	8	62.0
Articidea jerrutti (P)	4	0.8	1.1	8	62.0
Terebellidae (undet.) A (P)	4	0.8	1.1	8	62.0
Amphanete americana (P)	4	0.8	0.4	8	62.0
Podochela sidneyi (D)	3	0.6	0.9	6	69.5
Corbula barrattiana (M)	3	0.6	0.5	6	69.5
Polyplacophora (undet.) B (M)	3	0.6	0.5	6	69.5
Glycera papillosa (P)	3	0.6	1.3	6	69.5
Syllis gracilis (P)	3	0.6	0.5	6	69.5
Phyllodoce longipes (P)	3	0.6	1.3	6	69.5
Syllis cornuta (P)	3	0.6	0.5	6	69.5
Aonides paraguezensis (P)	3	0.6	0.9	6	69.5
Apseudidae (undet.) B (C)	2	0.4	0.9	4	83.0
Oxyurostylis smithi (C)	2	0.4	0.9	4	83.0
Aphelochaeta marioni (P)	2	0.4	0.5	4	83.0
Ophiuroidea (undet.) B (E)	2	0.4	0.5	4	83.0
Crassinella martinicensis (M)	2	0.4	0.5	4	83.0
Pelecypoda (undet.) G	2	0.4	0.9	4	83.0
Hyalina vellei (M)	2	0.4	0.5	4	83.0
Amphis avara (M)	2	0.4	0.9	4	83.0
Chaetopleura apiculata (M)	2	0.4	0.9	4	83.0
Laevicardium pictum (M)	2	0.4	0.5	4	83.0
Aspidosiphon misakiensis (S)	2	0.4	0.5	4	83.0
Harmothoe sp. B Day) (P)	2	0.4	0.9	4	83.0
Terebellidae (undet.) C (P)	2	0.4	0.9	4	83.0
Phyllodocidae (undet.) A (P)	2	0.4	0.5	4	83.0
Hydroides protulicola (P)	2	0.4	0.9	4	83.0
Autolytus dentatus (P)	2	0.4	0.5	4	83.0
Lepidonotus sublevis (P)	2	0.4	0.5	4	83.0
Lysidice ninetta (P)	2	0.4	0.5	4	83.0
Eulalia sanguinea (P)	2	0.4	0.9	4	83.0
Si wonia cuspis (D)	1	0.2	0.4	2	106.0
Palaemoninae (undet.) (D)	1	0.2	0.4	2	106.0
Leucosiidae (undet.) (D)	1	0.2	0.4	2	106.0
Ampelisca vadorum (A)	1	0.2	0.4	2	106.0
Trichophoxus floridanus (A)	1	0.2	0.4	2	106.0
Amphipoda (undet.) F	1	0.2	0.4	2	106.0
Tanaidae (undet.) B	1	0.2	0.4	2	106.0
Ampelisca verrilli (A)	1	0.2	0.4	2	106.0
Gammaropsis websteri (A)	1	0.2	0.4	2	106.0
Nemertina (undet.) C	1	0.2	0.4	2	106.0
Ophiuroidea (undet.) F (E)	1	0.2	0.4	2	106.0
Amphiura punctulata (E)	1	0.2	0.4	2	106.0
Tellina proxima (M)	1	0.2	0.4	2	106.0
Tiphymeris protimata (M)	1	0.2	0.4	2	106.0
Arene sp. (M)	1	0.2	0.4	2	106.0
Turbonidae (undet.) A (M)	1	0.2	0.4	2	106.0
Dentalium eboreum (M)	1	0.2	0.4	2	106.0
Argopecten gibbus (M)	1	0.2	0.4	2	106.0
Tellina magenvillii (M)	1	0.2	0.4	2	106.0
Nudibranchia (undet.) B (M)	1	0.2	0.4	2	106.0
Nypsoma apyrabranata (P)	1	0.2	0.4	2	106.0
Pomatoceros americanus (P)	1	0.2	0.4	2	106.0
Scalpellos sp. B (P)	1	0.2	0.4	2	106.0
Owenia fusiformis (P)	1	0.2	0.4	2	106.0
Lumbrinerides acuta (P)	1	0.2	0.4	2	106.0
Capitella capitata (P)	1	0.2	0.4	2	106.0
Eteone flava (P)	1	0.2	0.4	2	106.0

Table 7b. Abundance of macroinvertebrate species in grab collections from station DS34. (A = Amphipoda; C = Cumacea; Ce = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipunculida; St = Stomatopoda; T = Tanaidacea).

Species	DS34 Total Number	Number/0.1m² $\bar{x}$	Number/0.1m² SD	Estimated Number/m²	Rank by Number
Branchiostoma caribaeum (Ce)	631	126.2	73.4	1262	1.0
Sylllis regulata carolinae (P)	79	15.8	7.6	158	2.0
Tiron tropakis (A)	78	15.6	4.7	156	3.0
Cuspidaria fema (Ec)	45	9.0	11.0	90	4.5
Prionospio cristata (P)	45	9.0	6.9	90	4.5
Nematoda (undet.)	33	6.6	7.2	66	6.5
Chrysopetalidae (undet.) (P)	33	6.6	4.3	66	6.5
Aspidosiphon spinalis (S)	32	6.4	5.3	64	8.0
Spiophanes carolinae (P)	29	5.8	4.5	58	9.5
Tharyx marioni (P)	29	5.8	4.3	58	9.5
Polyplacophora (undet.) A (M)	27	5.4	5.9	54	11.0
Hemipodus roseus (P)	26	5.2	3.1	52	12.0
Rudilemboides sp. (A)	25	5.0	3.9	50	13.5
Trichophoxus floridanus (A)	25	5.0	5.7	50	13.5
Nephtys incisa (P)	21	4.2	1.6	42	15.0
Oligochaeta (undet.)	19	3.8	3.1	38	16.0
Calyptraea centralis (M)	18	3.6	1.9	36	17.0
Eurydice littoralis (I)	16	3.2	3.6	32	18.0
Exogone lispar (P)	15	3.0	2.2	30	19.0
Aricidea perrieri (P)	13	2.6	1.3	26	20.0
Armandia maculata (P)	11	2.2	2.9	22	21.0
Spiophanes bombyx (P)	9	1.8	2.9	18	22.5
Aonides mayiguezensis (P)	9	1.8	2.7	18	22.5
Pinnixa retinens (D)	8	1.6	2.3	16	25.0
Apanthura magnilamella (I)	8	1.6	1.1	16	25.0
Minuspio cirrifera (P)	8	1.6	2.2	16	25.0
Upogebia affinis (D)	7	1.4	1.1	14	28.0
Leptochelia rigax (T)	7	1.4	1.5	14	28.0
Nereis succinea (P)	7	1.4	2.1	14	28.0
Crassinella lunulata (M)	6	1.2	1.1	12	31.0
Typosyllis sp. (P)	6	1.2	2.2	12	31.0
Odontosyllis eximius (P)	6	1.2	0.8	12	31.0
Goneplacidae (undet.) (D)	5	1.0	1.7	10	35.0
Pagurus longicarpus (D)	5	1.0	1.7	10	35.0
Disporella imbellata (Ec)	5	1.0	1.2	10	35.0
Terebellidae (undet.) B (P)	5	1.0	2.2	10	35.0
Sigalion arenicola (P)	5	1.0	0.7	10	35.0
Diastylis sp. (A)	4	0.8	1.3	8	40.0
Mediomastus sp. (A)	4	0.8	0.8	8	40.0
Nemertina (undet.) A	4	0.8	0.8	8	40.0
Parandalia longicirrata (P)	4	0.8	0.8	8	40.0
Lumbrineridae acuta (P)	4	0.8	1.8	8	40.0
Astarte (undet.	3	0.6	0.9	6	46.5
Solasella varians (C)	3	0.6	0.5	6	46.5
Solemya proxima (M)	3	0.6	0.9	6	46.5
Crassinella martinicensis (M)	3	0.6	1.3	6	46.5
Haploscoloplos sp. B (P)	3	0.6	1.3	6	46.5
Marphysa sp. B Dar. (P)	3	0.6	0.5	6	46.5
Axiothella mucosa (P)	3	0.6	0.9	6	46.5
Scoloplos rubiformis (P)	3	0.6	1.3	6	46.5
Amphipoda (undet.) A	2	0.4	0.5	4	57.0
Dimyxaspis sp. (T)	2	0.4	0.5	4	57.0
Ampelisca sp. (A)	2	0.4	0.5	4	57.0
Typosyllis smithi (P)	2	0.4	0.5	4	57.0
Polychaeta (undet.)	2	0.4	0.5	4	57.0
Polynoidae (undet.) (P)	2	0.4	0.5	4	57.
Diplodonta semirugata (M)	2	0.4	0.5	4	57.
Nephtys picta inornata (P)	2	0.4	0.5	4	57.0
Polydora websteri (P)	2	0.4	0.5	4	57.0
Terebellidae (undet. A (P)	2	0.4	0.5	4	57.0
Nereis picta (P)	2	0.4	0.5	4	57.0
Aricidea simplex (P)	2	0.4	0.5	4	57.0
Tridonta (undet.) (M)	2	0.4	0.5	4	57.0

Table 7b. (Cont.)

DS34

Species	Total Number	Number/0.1m² x̄	Number/0.1m² SD	Estimated Number/m²	Rank by Number
Nuttus profundus (P)	1	0.2	0.4	2	80.0
Vitimitra (undet.) (P)	1	0.2	0.4	2	80.0
Lumbrineris parvulus (P)	1	0.2	0.4	2	80.0
Nicomache lumbricalis (P)	1	0.2	0.4	2	80.0
Praxissa hemphilli (P)	1	0.2	0.4	2	80.0
Synelmis ameliorum (A)	1	0.2	0.4	2	80.0
Listrosaccus sp. A (My)	1	0.2	0.4	2	80.0
Ampharetidae (undet.) (P)	1	0.2	0.4	2	80.0
Acanthohaustorius millsi (A)	1	0.2	0.4	2	80.0
Nannosquilla sp. (St)	1	0.2	0.4	2	80.0
Bates latharinensis (A)	1	0.2	0.4	2	80.0
Leptognatha caeca (T)	1	0.2	0.4	2	80.0
Ptilanotus triciata (P)	1	0.2	0.4	2	80.0
Nemertina (undet.) (B)	1	0.2	0.4	2	80.0
Lytechinus variegatus (E)	1	0.2	0.4	2	80.0
Ennucula bellastriata (M)	1	0.2	0.4	2	80.0
Brutilla concentrica (M)	1	0.2	0.4	2	80.0
Axiene sp. (M)	1	0.2	0.4	2	80.0
Hesionura elongata (P)	1	0.2	0.4	2	80.0
Serpulidae (undet.) (P)	1	0.2	0.4	2	80.0
Exogone verugera (P)	1	0.2	0.4	2	80.0
Scalibregma inflatum (P)	1	0.2	0.4	2	80.0
Sabaco elongatus (P)	1	0.2	0.4	2	80.0
Notomastus latericeus (P)	1	0.2	0.4	2	80.0
Owenia nebulosa (P)	1	0.2	0.4	2	80.0
Leanira albrita (P)	1	0.2	0.4	2	80.0
Clymenella torquata (P)	1	0.2	0.4	2	80.0
Hydroides protulicola (P)	1	0.2	0.4	2	80.0
Owenia fusiformis (P)	1	0.2	0.4	2	80.0
Heteromastus californiensis (P)	1	0.2	0.4	2	80.0
Ampharete americana (P)	1	0.2	0.4	2	80.0
Phyllodoce arenae (P)	1	0.2	0.4	2	80.0
Pherusa sp. (P)	1	0.2	0.4	2	80.0

Table 27. Abundance of macroinvertebrate species in grab collections from station DS35. (A = Amphipoda; C = Cumacea; Ce = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipunculida; T = Tanaidacea).

	DS35				
Species	Total Number	Number/0.1m² $\bar{X}$	SD	Estimated Number/m²	Rank by Number
Branchiostoma caribaeum (Ce)	469	93.8	49.8	938	1.0
Tiron tropakis (A)	65	13.0	12.2	130	2.0
Prionospio cristata (P)	63	12.6	7.2	126	3.0
Hemipodus roseus (P)	61	12.2	8.3	122	4.0
Syllis regulata carolinae (P)	60	12.0	3.4	120	5.0
Chrysopetalidae (undet.) (P)	54	10.8	9.1	108	6.0
Calyptraea centralis (M)	52	10.4	9.3	104	7.0
Glyptoplax smithii (D)	49	9.8	11.0	98	8.0
Aspidosiphon spinalis (S)	48	9.6	5.6	96	9.0
Goniadides carolinae (P)	47	9.4	3.3	94	10.0
Termilliopsis annulata (P)	39	7.8	9.4	78	11.0
Nematoda (undet.)	35	7.0	5.6	70	12.0
Polyplacophora (undet. A) (M)	32	6.4	3.8	64	13.0
Trichophoxus floridanus (A)	25	5.0	7.0	50	14.5
Tolfingia sp. A (S)	25	5.0	9.0	50	14.5
Sthenelais bombyx (P)	24	4.8	4.0	48	16.0
Polyplacophora (undet.) B (M)	22	4.4	1.7	44	17.0
Eulalia sanguinea (P)	21	4.2	4.4	42	18.0
Exogone dispar (P)	20	4.0	4.2	40	19.0
Tapuladria doma (Ec)	19	3.8	2.4	38	20.0
Photis sp. (A)	17	3.4	5.0	34	21.5
Axiothella mucosa (P)	17	3.4	2.1	34	21.5
Hesionura elongata (P)	15	3.0	3.2	30	23.5
Polycirrus eximius (P)	15	3.0	1.6	30	23.5
Minuspio cirrifera (P)	14	2.8	1.9	28	25.0
Eurydice littoralis (I)	13	2.6	2.1	26	26.5
Onuphis nebulosa (P)	13	2.6	0.9	26	26.5
Cirratulidae (undet.) B (P)	12	2.4	2.3	24	28.0
Pinnixa retinens (D)	11	2.2	1.6	22	29.5
Travisia parva (P)	11	2.2	2.3	22	29.5
Crassinella lunulata (M)	10	2.0	1.9	20	31.0
Maera caroliniana (A)	9	1.8	1.6	18	33.5
Apanthura magnifica (I)	9	1.8	1.9	18	33.5
Turbellaria (undet.)	9	1.8	2.4	18	33.5
Marphysa sp. B (Jar.) (P)	9	1.8	1.8	18	33.5
Isopoda (undet.) A	8	1.6	1.8	16	37.5
Leptognatha laeta (I)	8	1.6	1.3	16	37.5
Nephtys squamosa (P)	8	1.6	1.8	16	37.5
Oligochaeta (undet.)	8	1.6	1.6	16	37.5
Goneplacidae (undet.) (D)	7	1.4	1.1	14	42.5
Ostracoda (undet.)	7	1.4	1.3	14	42.5
Typhlosyllis sp. (P)	7	1.4	2.1	14	42.5
Heteromastus filiformis (P)	7	1.4	1.1	14	42.5
Nephtys incisa (P)	7	1.4	2.1	14	42.5
Lonchotmerinx rudolphi (P)	7	1.4	1.7	14	42.5
Lilljeborgia sp. (A)	6	1.2	1.3	12	48.5
Lembos smithi (A)	6	1.2	2.7	12	48.5
Iphinoe aequalis (M)	6	1.2	1.6	12	48.5
Eulalia narragansetta (P)	6	1.2	1.6	12	48.5
Phyllodocidae (undet.) A (P)	6	1.2	2.2	12	48.5
Pagurus longicarpus (D)	5	1.0	1.7	10	54.5
Corbula inaequivalvis (M)	5	1.0	1.0	10	54.5
Mysella arctia (M)	5	1.0	1.4	10	54.5
Nereis succinea (P)	5	1.0	1.2	10	54.5
Nephtys (undet.) A (P)	5	1.0	1.4	10	54.5
Nemertinea (undet.) (P)	5	1.0	1.2	10	54.5
Sipuncula (undet.) (S)	5	1.0	1.0	10	54.5
Ampelisca verrilli (A)	4	0.8	1.3	8	61.5
Ampelisca (undet.) (A)	4	0.8	1.8	8	61.5
Nemertinea (undet.) B	4	0.8	0.8	8	61.5
Leitoscoloplos fragilis (P)	4	0.8	1.3	8	61.5
Glycera tridactyla (P)	4	0.8	0.8	8	61.5
Mya arenaria (M)	4	0.8	1.1	8	61.5
Nephtys picta (P)	4	0.8	1.3	8	61.5

Table 11. (Cont.).

DS35

Species	Total Number	Number/0.1m² $\bar{X}$	Number/0.1m² SD	Estimated Number/m²	Rank by Number
Cyclaspis varians (C)	3	0.6	0.9	6	70.5
Campylaspis sp. (C)	3	0.6	0.9	6	70.5
Oxyurostylis smithi (C)	3	0.6	0.9	6	70.5
Neomysis americana (My)	3	0.6	1.3	6	70.5
Lytechinus variegatus (E)	3	0.6	0.5	6	70.5
Dispoporella umbellata (Bo)	3	0.6	0.9	6	70.5
Hyalina vellei (M)	3	0.6	0.9	6	70.5
Mitrella lunata (M)	3	0.6	0.9	6	70.5
Sipunculida (undet.)	3	0.6	0.9	6	70.5
Aricidea cerruti (P)	3	0.6	0.9	6	70.5
Terebellidae (undet.) A (P)	3	0.6	1.3	6	70.5
Sigalion arenicola (P)	3	0.6	0.9	6	70.5
Rudilemboides sp. (A)	2	0.4	0.5	4	82.5
Amphipoda (undet.) A	2	0.4	0.5	4	82.5
Gastropleustes sp. A (My)	2	0.4	0.9	4	82.5
Neoamphitrandomia floridanus (A)	2	0.4	0.5	4	82.5
Onuphidae (undet.) (P)	2	0.4	0.5	4	82.5
Nassa acuta (M)	2	0.4	0.5	4	82.5
Melanellidae (undet.) (M)	2	0.4	0.5	4	82.5
Gastropoda (undet.) A (M)	2	0.4	0.5	4	82.5
Chama macerophylla (M)	2	0.4	0.5	4	82.5
Glycera tesselata (P)	2	0.4	0.9	4	82.5
Axiidae gracilipes (D)	1	0.4	0.5	4	82.5
Pinnixa sp. A	1	0.2	0.4	2	113.0
Leptochela serratorbita (D)	1	0.2	0.4	2	113.0
Latreutes parvulus (D)	1	0.2	0.4	2	113.0
Polycheles sculptus (D)	1	0.2	0.4	2	113.0
Heterocrypta granulata (D)	1	0.2	0.4	2	113.0
Portunidae (undet.) (D)	1	0.2	0.4	2	113.0
Synchelidium americanum (A)	1	0.2	0.4	2	113.0
Bathyporeia parkeri (A)	1	0.2	0.4	2	113.0
Leconacila incerta (A)	1	0.2	0.4	2	113.0
Parinopatea carinata (A)	1	0.2	0.4	2	113.0
Leptochelia dubia (C)	1	0.2	0.4	2	113.0
Nannastacidae (undet.) A (C)	1	0.2	0.4	2	113.0
Cyclaspis pygmaea (C)	1	0.2	0.4	2	113.0
Ampelisca agassizi (A)	1	0.2	0.4	2	113.0
Parahaustorius iphis (A)	1	0.2	0.4	2	113.0
Amphilochidae (undet.) A	1	0.2	0.4	2	113.0
Nemertina (undet.) A	1	0.2	0.4	2	113.0
Nemertina (undet.) B	1	0.2	0.4	2	113.0
Ophiuroidea (undet.) A (E)	1	0.2	0.4	2	113.0
Amphiuridae (undet.) B (E)	1	0.2	0.4	2	113.0
Diplodonta orbella (M)	1	0.2	0.4	2	113.0
Nucula [illegible] (M)	1	0.2	0.4	2	113.0
Tellina [illegible] (M)	1	0.2	0.4	2	113.0
Arcidae (undet.) B (M)	1	0.2	0.4	2	113.0
Arca [illegible] (M)	1	0.2	0.4	2	113.0
Nephtys sp. A	1	0.2	0.4	2	113.0
Polynoidae (undet.) (P)	1	0.2	0.4	2	113.0
Polychaeta (undet.) C	1	0.2	0.4	2	113.0
Paraprionospio [illegible] (P)	1	0.2	0.4	2	113.0
Dentalium eburneum (M)	1	0.2	0.4	2	113.0
Caecum sp. (M)	1	0.2	0.4	2	113.0
Psammolyria [illegible] (P)	1	0.2	0.4	2	113.0
Euphanilla [illegible]	1	0.2	0.4	2	113.0
Pis[illegible]	1	0.2	0.4	2	113.0
Sthenelais [illegible]	1	0.2	0.4	2	113.0
Marenzelleria sp.	1	0.2	0.4	2	113.0
Amphinomidae (undet.)	1	0.2	0.4	2	113.0

Table 77. (Cont.).

DS35

Species	Total Number	Number/0.1m² x̄	Number/0.1m² SD	Estimated Number/m²	Rank by Number
Tharyx marioni (P)	1	0.2	0.4	2	113.0
Tirrophorus lyriformis (P)	1	0.2	0.4	2	113.0
Ancistrosyllis jonesi (P)	1	0.2	0.4	2	113.0
Glycera oxycephala (P)	1	0.2	0.4	2	113.0
Eunice websteri (P)	1	0.2	0.4	2	113.0
Terebellidae (undet.) 3 (P)	1	0.2	0.4	2	113.0
Nereis succinea (P)	1	0.2	0.4	2	113.0
Eteone heteropoda (P)	1	0.2	0.4	2	113.0
Poecilochaetus sp. (P)	1	0.2	0.4	2	113.0
Lysidice ninetta (P)	1	0.2	0.4	2	113.0
Phyllodoce arenae (P)	1	0.2	0.4	2	113.0
Aonides mayaguezensis (P)	1	0.2	0.4	2	113.0

Table 78. Abundance of macroinvertebrate species in grab collections from station DS3b. (A = Amphipoda; C = Cumacea; Cc = Cephalochordata; D = Decapoda; Ec = Echinodermata; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipuncolida).

	DS3b				
Species	Total Number	Number 0.1m^2 $\bar{x}$	SD	Estimated Number m^2	Rank by Number
Branchiostoma caribaeum (Cc)	353	70.6	50.4	706	1.0
Cupuladria fimia (Ec)	162	32.4	58.1	324	2.0
Trichophoxus floridanus (A	58	11.6	7.3	116	3.0
Spiophanes bombyx (P)	37	7.4	3.3	74	4.0
Acanthohaustorius sp. (A)	25	5.0	10.1	50	5.0
Axiothella mucosa (P)	24	4.8	4.2	48	6.0
Armandia maculata (P)	20	4.0	3.5	40	7.0
Nemertina (undet.) A	19	3.8	2.5	38	8.0
Nematoda (undet.)	18	3.6	2.1	36	9.5
Nephtys incisa (P)	18	3.6	3.0	36	9.5
Chrysopetalidae (undet.) (P)	16	3.2	2.8	32	11.0
Glycera oxycephala (P)	15	3.0	2.4	30	12.5
Nephtys picta (P)	15	3.0	2.3	30	12.5
Onuphis eremita (P)	12	2.4	2.1	24	14.0
Apanthura magnifica (I)	10	2.0	1.4	20	15.0
Trichophoxus epistomus (A	9	1.8	3.0	18	17.0
Protohaustorius sp. deichmannae (A)	9	1.8	2.5	18	17.0
Aspidosiphon spinalis (S)	9	1.8	1.1	18	17.0
Syllis regulata carolinae (P)	7	1.4	1.7	14	19.5
Prionospio cristata (P)	7	1.4	3.1	14	19.5
Bathyporeia parkeri (A)	6	1.2	2.2	12	21.5
Pseudeurythoe ambigua (P)	6	1.2	1.9	12	21.5
Prionospio fallax (P)	5	1.0	1.7	10	23.5
Phyllodoce arenae (P)	5	1.0	1.4	10	23.5
Pinnixa retinens (D)	4	0.8	0.8	8	29.5
Rudilemboides sp. (A)	4	0.8	1.6	8	29.5
Tasmosactus sp. A (My)	4	0.8	1.3	8	29.5
Ampelisca verrilli (A)	4	0.8	1.3	8	29.5
Tiron triaxis (A)	4	0.8	1.3	8	29.5
Polynoophora (undet.) A (M)	4	0.8	1.3	8	29.5
Cirratulidae (undet.) B (P)	4	0.8	0.8	8	29.5
Aricidea jerrmi (P)	4	0.8	1.3	8	29.5
Prionospio pinnobranchiata (P)	4	0.8	1.3	8	29.5
Magelona rosea (P)	4	0.8	1.3	8	29.5
Acanthohaustorius millsi (A)	3	0.6	1.3	6	36.0
Holothuroidea (undet.) 3	3	0.6	0.5	6	36.0
Oligochaeta (undet.)	3	0.6	1.3	6	36.0
Trachypeneus constrictus (D)	2	0.4	0.9	4	46.0
Diastylis sp. (A)	2	0.4	0.5	4	46.0
Gerbarmia sp. (A)	2	0.4	0.9	4	46.0
Photis sp. (A)	2	0.4	0.5	4	46.0
Mesmysis americana (My)	2	0.4	0.9	4	46.0
Erilla concentrica (M)	2	0.4	0.5	4	46.0
Crassinella lunulata (M)	2	0.4	0.5	4	46.0
Aspidosiphon misakiensis (S)	2	0.4	0.9	4	46.0
Goniadides carolinae (P)	2	0.4	0.5	4	46.0
Cumbrineris latreilli (P	2	0.4	0.5	4	46.0
Macrochymene dendata (P)	2	0.4	0.9	4	46.0
Terebellidae (undet.) A (P)	2	0.4	0.5	4	46.0
Owenia fusiformis (P)	2	0.4	0.9	4	46.0
Glymenella torquata (P)	2	0.4	0.9	4	46.0
Pionosyllis sp. (P)	2	0.4	0.9	4	46.0
Isolda pulchella (P)	2	0.4	0.9	4	46.0
Lembos unicornis (A)	2	0.4	0.5	4	46.0
Diopatra cuprea (P)	2	0.4	0.9	4	46.0
Cinadalidae (undet.) C	1	0.2	0.4	2	53.5
Dyspanopeus stephensoni (D	1	0.2	0.4	2	53.5
Alpheus floridanus (D	1	0.2	0.4	2	53.5
Portunidae (undet.) (D)	1	0.2	0.4	2	53.5
Prionospio dayi (P)	1	0.2	0.4	2	53.5
Ampeliscidae (undet.) A	1	0.2	0.4	2	53.5

Table 73. (Cont.)

DS36

Species	Total Number	Number/0.1m² $\bar{x}$	SD	Estimated Number/m²	Rank by Number
Cyclaspis varians (C)	1	0.2	0.4	2	68.0
Oxyurostylis smithi (C)	1	0.2	0.4	2	68.0
Cyathura burbancki (I)	1	0.2	0.4	2	68.0
Pseudoplatyischnopus floridanus (A)	1	0.2	0.4	2	68.0
Actiniaria (undet.)	1	0.2	0.4	2	68.0
Ophiuroidea (undet.)	1	0.2	0.4	2	68.0
Dispoporella umbellata (Ec)	1	0.2	0.4	2	68.0
Olivella mutica (M)	1	0.2	0.4	2	68.0
Tellina probrina (M)	1	0.2	0.4	2	68.0
Calyptraea centralis (M)	1	0.2	0.4	2	68.0
Chione sp. (M)	1	0.2	0.4	2	68.0
Sipunculus nudus (S)	1	0.2	0.4	2	68.0
Nereis acuminata (P)	1	0.2	0.4	2	68.0
Loimia medusa (P)	1	0.2	0.4	2	68.0
Polycirrus eximius (P)	1	0.2	0.4	2	68.0
Dispio uncinata (P)	1	0.2	0.4	2	68.0
Nereis succinea (P)	1	0.2	0.4	2	68.0
Drilonereis magna (P)	1	0.2	0.4	2	68.0
Exogone dispar (P)	1	0.2	0.4	2	68.0
Magelona phyllisae (P)	1	0.2	0.4	2	68.0
Magelona papillicornis (P	1	0.2	0.4	2	68.0
Eunice vittata (P)	1	0.2	0.4	2	68.0

Table 79. Abundance of macroinvertebrate species in grib collections from station DS37. (A = Amphipoda; C = Cumacea; Cc = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipunculida; St = Stomatopoda; T = Tanaidacea).

	DS37				
Species	Total Number	Number/0.1m² $\bar{x}$	SD	Estimated Number m²	Rank by Number
Branchiostoma caribaeum (Cc)	195	39.0	19.6	390	1.0
Trichophoxus floridanus (A)	112	22.4	9.5	224	2.0
Cupuladria doma (Ec)	66	13.2	7.5	132	3.0
Aspidosiphon spinalis (S)	24	4.8	5.0	48	4.0
Syllis regulata carolinae (P)	23	4.6	1.9	46	5.5
Oligochaeta (undet.)	23	4.6	3.8	46	5.5
Goniadides carolinae (P)	22	4.4	2.5	44	7.0
Spiophanes bombyx (P)	17	3.4	3.4	34	8.0
Armandia maculata (P)	15	3.0	1.6	30	9.0
Prionospio cristata (P)	14	2.8	2.9	28	10.0
Chrysopetalidae (undet.) (P)	13	2.6	2.7	26	11.0
Eulalia sanguinea (P)	11	2.2	2.6	22	12.0
Erycilla concentrica (M)	9	1.8	2.9	18	13.5
Vermiliopsis annulata (P)	9	1.8	1.3	18	13.5
Spio pettiboneae (P)	8	1.6	1.8	16	15.0
Lilleborgia sp. (A)	7	1.4	2.2	14	17.5
Apanthura magnifica (I)	7	1.4	1.3	14	17.5
Nemertina (undet.) A	7	1.4	0.5	14	17.5
Nephtys picta (P)	7	1.4	1.1	14	17.5
Glyptoplax smithii (D)	6	1.2	1.3	12	21.5
Calyptraea centralis (M)	6	1.2	1.6	12	21.5
Glycera oxycephala (P)	6	1.2	1.6	12	21.5
Aonides mayaguezensis (P)	6	1.2	1.1	12	21.5
Nereidae (undet.) (P)	5	1.0	1.7	10	24.0
Turbellaria (undet.)	4	0.8	0.8	8	30.0
Nemertina (undet.) B	4	0.8	0.8	8	30.0
Protodorvillea kefersteini (P)	4	0.8	0.4	8	30.0
Terratulidae (undet.) B (P)	4	0.8	1.3	8	30.0
Aricidea suecica (P)	4	0.8	0.8	8	30.0
Nephtys incisa (P)	4	0.8	0.4	8	30.0
Onuphis nebulosa (P)	4	0.8	0.8	8	30.0
Axiothella mucosa (P)	4	0.8	0.8	8	30.0
Hydroides protulicola (P)	4	0.8	0.8	8	30.0
Polydora sp. B (P)	4	0.8	1.3	8	30.0
Pholoe minuta (P)	4	0.8	0.8	8	30.0
Lembos unicornis (A)	3	0.6	0.9	6	42.5
Amphipoda (undet.) A	3	0.6	0.9	6	42.5
Eurydice littoralis (I)	3	0.6	0.9	6	42.5
Ostracoda (undet.) A	3	0.6	1.3	6	42.5
Dasybasteis sp. B (My)	3	0.6	0.9	6	42.5
Ophiuroidea (undet.) B (E)	3	0.6	0.9	6	42.5
Fumelo cumulodes (M)	3	0.6	0.9	6	42.5
Sipunculida (undet.)	3	0.6	0.9	6	42.5
Ophelia dentipalata (P)	3	0.6	0.5	6	42.5
Terebellidae (undet.) A (P)	3	0.6	0.9	6	42.5
Prionospio pinnobrancha (P)	3	0.6	0.9	6	42.5
Exogone lourei (P)	3	0.6	0.5	6	42.5
Amphinomidae (undet.) (P)	3	0.6	0.9	6	42.5
Mayra carolinana (A)	2	0.4	0.5	4	50.5
Amphiuridae sp. (E)	2	0.4	0.5	4	50.5
Cerithium sp. 1 (M)	2	0.4	0.5	4	50.5
Nemertini (undet.)	2	0.4	0.5	4	50.5
Caecum [illegible] (M)	2	0.4	0.9	4	50.5
Corbulidae (undet.) B (M)	2	0.4	0.5	4	50.5
[illegible] (M)	2	0.4	0.5	4	50.5
[illegible] (P)	2	0.4	0.5	4	50.5
[illegible] (P)	2	0.4	0.5	4	50.5
[illegible] (P)	2	0.4	0.5	4	50.5
[illegible]	2	0.4	0.5	4	50.5
[illegible] (P)	2	0.4	0.5	4	50.5
[illegible] (P)	2	0.4	0.5	4	50.5

Table 79. (Cont.)

DS37

Species	Total Number	Number/0.1m² $\bar{x}$	Number/0.1m² SD	Estimated Number m⁻²	Rank by Number
Pagurus longicarpus (D)	1	0.2	0.4	2	77.0
Ovalipes stephensoni (D)	1	0.2	0.4	2	77.0
Processa hemphilli (D)	1	0.2	0.4	2	77.0
Synchelidium americanum (A)	1	0.2	0.4	2	77.0
Bathyporeia parkeri (A	1	0.2	0.4	2	77.0
Rudilemboides sp. (A)	1	0.2	0.4	2	77.0
Carinobatea carinata (A)	1	0.2	0.4	2	77.0
Microdeutopus sp. (A)	1	0.2	0.4	2	77.0
Leptochelia rapax (T)	1	0.2	0.4	2	77.0
Nannosquilla sp. (St)	1	0.2	0.4	2	77.0
Oxyurostylis smithi (C)	1	0.2	0.4	2	77.0
Pseudoplatyischnopus floridanus (A)	1	0.2	0.4	2	77.0
Mellita quinquiesperforata (E)	1	0.2	0.4	2	77.0
Amphiuagmus sp. A (E)	1	0.2	0.4	2	77.0
Polyplacophora (undet.) A (M)	1	0.2	0.4	2	77.0
Crepidula sp. (M)	1	0.2	0.4	2	77.0
Arachis avara (M)	1	0.2	0.4	2	77.0
Mitrella lunata (M)	1	0.2	0.4	2	77.0
Abra aequalis (M)	1	0.2	0.4	2	77.0
Tolifingia sp. B (S)	1	0.2	0.4	2	77.0
Trypanosyllis sp. (P)	1	0.2	0.4	2	77.0
Pomatoceros americanus (P)	1	0.2	0.4	2	77.0
Paraplionosyllis longicirrata (P)	1	0.2	0.4	2	77.0
Tharyx marioni (P)	1	0.2	0.4	2	77.0
Aricidea cerruti (P)	1	0.2	0.4	2	77.0
Polycirrus eximius (P)	1	0.2	0.4	2	77.0
Hesionidae (undet.) A (P)	1	0.2	0.4	2	77.0
Nereis succinea (P)	1	0.2	0.4	2	77.0
Phyllodocidae (undet.) (P)	1	0.2	0.4	2	77.0

Table 80. Abundance of macroinvertebrate species in grab collections from station D536. (A = Amphipoda; Br = Brachiopoda; C = Cumacea; Cc = Cephalochordata; Cn = Cnidaria; D = Decapoda; E = Echinodermata; Ec = Ectoprocta; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; S = Sipunculida; T = Tanaidacea).

D536

Species	Total Number	Number 0.1m² $\bar{x}$	Number 0.1m² SD	Estimated Number m²	Rank by Number
Eunice vittata (P)	146	29.2	12.7	292	1.0
Goniadides carolinae (P)	133	26.6	9.4	266	2.0
Chrysopetalidae (undet.) (P)	132	26.4	5.4	264	3.0
Scalibregma inflatum (P)	73	14.6	6.1	146	4.0
Oligochaeta (undet.)	65	13.0	7.3	130	5.0
Aspidosiphon spinalis (S)	53	10.6	4.0	106	6.0
Pelecypoda (undet.) (M)	50	10.0	5.4	100	7.0
Jasmineira bilobata (P)	45	9.0	5.3	90	8.0
Branchiostoma caribaeum (Cc)	44	8.8	4.5	88	9.0
Paguristes longicirrus (D)	35	7.0	4.2	70	10.0
Exogone lourei (P)	30	6.0	2.5	60	11.0
Polyplacophora (undet.) (A) (M)	29	5.8	4.0	58	12.0
Lumbrineris latreilli (P)	28	5.6	3.6	56	13.0
Nuculambo sp. (A)	27	5.4	3.0	54	14.0
Ampelisca vadorum (A)	25	5.0	4.8	50	15.0
Lembos unicornis (A)	24	4.8	3.0	48	18.0
Clistidia pyramidata (Br)	24	4.8	2.2	48	18.0
Nematoda (undet.)	24	4.8	3.8	48	18.0
Synelmis albini (P)	24	4.8	2.6	48	18.0
Prionospio pinnata (P)	24	4.8	1.9	48	18.0
Photis sp. (A)	23	4.6	1.8	46	21.0
Polycladonata (undet.) (P) (M)	22	4.4	3.0	44	22.0
Polycirrus eximius (P)	22	4.4	3.9	44	22.0
Ampharete americana (P)	20	4.0	3.1	40	24.0
Eunice vittata (P)	19	3.8	1.9	38	25.0
Eulalia sanguinea (P)	19	3.8	3.9	38	25.0
Tiron tropakis (A)	18	3.6	1.8	36	27.0
Melinnastus californiensis (P)	18	3.6	2.3	36	27.0
Onuphis nebulosa (P)	17	3.4	1.8	34	29.0
Paraphonoscolis longiferata (P)	16	3.2	1.6	32	30.0
Cirratulidae (undet.) (P)	16	3.2	1.6	32	30.0
Oweniidae (undet.) (P)	15	3.0	3.7	30	33.0
Mirocaulopus sp. (A)	15	3.0	3.9	30	33.0
Vermiliopsis annulata (P)	15	3.0	3.3	30	33.0
Aphelochaeta pettiboneae (P)	14	2.8	1.8	28	35.0
Phyllodoce longipes (P)	14	2.8	1.8	28	35.0
Tellina tersa (M)	13	2.6	2.4	26	37.0
Axiothella mucosa (P)	13	2.6	1.3	26	37.0
Isopoda (undet.) (I)	12	2.4	1.8	24	40.5
Crassinella lunulata (M)	12	2.4	1.8	24	40.5
Mediomastus ambiseta (P)	12	2.4	2.1	24	40.5
Onuphis squamosa (P)	12	2.4	1.5	24	40.5
Glyptoplax smithii (D)	11	2.2	1.3	22	43.0
Ischyrocerus serratus (A)	11	2.2	1.5	22	43.0
Syllis cornuta (P)	10	2.0	2.0	20	45.0
Alpheus normanni (D)	9	1.8	1.8	18	46.5
Onuphis fibrata (P)	9	1.8	1.1	18	46.5
Spionidae (undet.) (P)	9	1.8	2.6	18	46.5
Spiophanes bombyx (P)	9	1.8	1.9	18	46.5
Semibalanus roseus (C)	9	1.8	1.8	18	46.5
Phyllodoce arenae (P)	9	1.8	2.0	18	46.5
Nereis grayana (P)	8	1.6	1.5	16	49.5
Amphipoda (undet.) (A)	8	1.6	1.1	16	49.5
Ampharete lutrensis (P)	7	1.4	1.3	14	51.0
Tellina sybilla (M)	7	1.4	1.1	14	52.5
Glycinde solitaria (P)	7	1.4	1.1	14	52.5
Cirratulus (P)	6	1.2	1.3	12	54.0
Ampelisca (A)	6	1.2	1.3	12	54.0
Lumbrineris (P)	5	1.0	1.0	10	55.0
Nuculana (M)	5	1.0	1.0	10	56.5
Nephtys (P)	5	1.0	1.0	10	56.5
Nuculana acuta (M)	5	1.0	1.0	10	56.5
Nuculana (M)	5	1.0	1.0	10	56.5

Table 80. (Cont.)

Species	Total Number	Number/0.1m² X̄	SD	Estimated Number m²	Rank by Number
DS 38					
Sipuncula (undet.)	6	1.2	0.8	12	65.0
Diastoporella umbellata (Bc)	6	1.2	1.8	12	65.0
Semele bellastriata (M)	6	1.2	0.8	12	65.0
Sipunculida (undet.)	6	1.2	0.8	12	65.0
Harmothoe sp. B (Day) (P)	6	1.2	1.1	12	65.0
Amphipoda (undet.) A	5	1.0	1.0	10	74.0
Aphelochaeta magnifica (I	5	1.0	1.0	10	74.0
Nemertina (undet.) A	5	1.0	1.0	10	74.0
Holothuroidea (undet.) A (E)	5	1.0	0.7	10	74.0
Corbula barrattiana (M)	5	1.0	1.2	10	74.0
Sipunculus nudus (S)	5	1.0	1.2	10	74.0
Megalomma sp. A (P)	5	1.0	0.7	10	74.0
Pisione remota (P)	5	1.0	0.7	10	74.0
Sabella ferrugina (P)	5	1.0	1.2	10	74.0
Nephtys incisa (P)	5	1.0	1.4	10	74.0
Terebellidae (undet.) A (P)	5	1.0	1.2	10	74.0
Nephtys pista (P)	5	1.0	1.2	10	74.0
Schistomeringos rudolphi (P)	5	1.0	0.7	10	74.0
Eatretes parvulus (D)	4	0.8	1.8	8	85.5
Spelaeonemorus pontifer (D)	4	0.8	0.8	8	85.5
Maera grubeliana (A)	4	0.8	0.8	8	85.5
Nemertina (undet.) B	4	0.8	0.8	8	85.5
Anaitis aviara (M)	4	0.8	0.8	8	85.5
Microspio pigmentata (P)	4	0.8	1.8	8	85.5
Eunicidae (undet.) A (P)	4	0.8	0.8	8	85.5
Lumbrinereis tetraura (P)	4	0.8	1.1	8	85.5
Nereidae (undet.) (P)	4	0.8	0.8	8	85.5
Pionosyllis sp. (P)	4	0.8	0.4	8	85.5
Pinnixa retinens (D)	3	0.6	0.8	6	97.5
Tellina polita (S)	3	0.6	0.5	6	97.5
Ostracoda (undet.)	3	0.6	0.5	6	97.5
Thama tuberculata (M)	3	0.6	0.5	6	97.5
Lima pellucida (M)	3	0.6	0.9	6	97.5
Polinoida sp. A (S)	3	0.6	1.3	6	97.5
Spiophanes bombyx (P)	3	0.6	0.5	6	97.5
Cumberlandensis paradoxa (P)	3	0.6	0.9	6	97.5
Protodorvillea kefersteini (P)	3	0.6	0.9	6	97.5
Magelona sp. Day 23) (P)	3	0.6	0.9	6	97.5
Spiophanes bombyx (P)	3	0.6	0.9	6	97.5
Sphaerosyllis pirifera (P)	3	0.6	0.9	6	97.5
Nephtys hystricis (P)	3	0.6	0.5	6	97.5
Nephtys incisa (P)	3	0.6	0.9	6	97.5
Prionospio cirrifera (D)	2	0.4	0.9	4	115.5
Polynoidae sp. A (S)	2	0.4	0.5	4	115.5
Terebellides stroemi (A)	2	0.4	0.5	4	115.5
Diopatra cuprea (I)	2	0.4	0.9	4	115.5
Amaeana (undet.) (E)	2	0.4	0.9	4	115.5
Ampelisca vadorum (A)	2	0.4	0.5	4	115.5
Nuculana minuta (D)	2	0.4	0.5	4	115.5
Lyca pectinata (Stimpson) (E)	2	0.4	0.5	4	115.5
Tellidora cristata (M)	2	0.4	0.9	4	115.5
Margarella antillarum (M)	2	0.4	0.5	4	115.5
[illegible] (M)	2	0.4	0.5	4	115.5
[illegible] (E)	2	0.4	0.9	4	115.5
Amaeana trilobata (P)	2	0.4	0.5	4	115.5
[illegible] (P)	2	0.4	0.9	4	115.5
[illegible] (A) (P)	2	0.4	0.5	4	115.5
[illegible]	2	0.4	0.5	4	115.5
[illegible] (P)	2	0.4	0.9	4	115.5
[illegible] (P)	2	0.4	0.9	4	115.5
[illegible]	2	0.4	0.5	4	115.5
[illegible] (P)	2	0.4	0.9	4	115.5
[illegible]	2	0.4	0.9	4	115.5
[illegible]	2	0.4	0.9	4	115.5

Table [illegible] (Cont.)

Species	Total Number	Number/0.1 m² $\bar{X}$	SD	Estimated Number/m²	Rank by Number
Pilargidae (undet. A) (D)	1	0.2	0.4	2	150.
Ancistrosyllis overmanni (P)	1	0.2	0.4	2	150.
Pelia murfia (P)	1	0.2	0.4	2	150.
Maldane (undet.) B (P)	1	0.2	0.4	2	150.
Nicomache atlantica (P)	1	0.2	0.4	2	150.
Glycinde solitaria (A)	1	0.2	0.4	2	150.
Glycinde [illegible] (A)	1	0.2	0.4	2	150.
Nephtys floridanus (A)	1	0.2	0.4	2	150.
Nephtys (undet. E	1	0.2	0.4	2	150.
Eunoa nodosaetifera (P)	1	0.2	0.4	2	150.
Polynoidae (undet. I)	1	0.2	0.4	2	150.
Harmothoe sp. I)	1	0.2	0.4	2	150.
Lepidonotus [illegible] (P)	1	0.2	0.4	2	150.
Lepidonotus sp. B (Mo)	1	0.2	0.4	2	150.
Hesionura elongata (M)	1	0.2	0.4	2	150.
Podarke [illegible] (A)	1	0.2	0.4	2	150.
Parougia caribaea (A)	1	0.2	0.4	2	150.
Syllis [illegible] (P)	1	0.2	0.4	2	150.
Exogone (undet. (P)	1	0.2	0.4	2	150.
Autolytus (undet. (P)	1	0.2	0.4	2	150.
Typosyllis (undet.	1	0.2	0.4	2	150.
Branchiosyllis exilis (E)	1	0.2	0.4	2	150.
Amblyosyllis formosa (E)	1	0.2	0.4	2	150.
Nereis pelagica (M)	1	0.2	0.4	2	150.
Platynereis [illegible] (M)	1	0.2	0.4	2	150.
Neanthes succinea (M)	1	0.2	0.4	2	150.
Nereidae (undet. A) (P)	1	0.2	0.4	2	150.
Nereis riisei (P)	1	0.2	0.4	2	150.
Nereis [illegible] (P)	1	0.2	0.4	2	150.
Micronereis variegata (P)	1	0.2	0.4	2	150.
Nereis [illegible] (P)	1	0.2	0.4	2	150.
Nereis sphyrabranchia (P)	1	0.2	0.4	2	150.
Megalomma sp. B (P)	1	0.2	0.4	2	150.
Lumbrineris impatiens (P)	1	0.2	0.4	2	150.
Nereis oxypenala (P)	1	0.2	0.4	2	150.
Notocirrus reptabundus (P)	1	0.2	0.4	2	150.
Eunice websteri (P)	1	0.2	0.4	2	150.
Onuphis sp. B (P)	1	0.2	0.4	2	150.
Hesionidae (undet. A) (P)	1	0.2	0.4	2	150.
Nereidinia celatum (P)	1	0.2	0.4	2	150.
Polynoidae (undet. A) (P)	1	0.2	0.4	2	150.
Goniadides carolinensis (P)	1	0.2	0.4	2	150.
Nereis sp. (P)	1	0.2	0.4	2	150.
Armandia tayloria (P)	1	0.2	0.4	2	150.
Orbiniidae sp. (P)	1	0.2	0.4	2	150.
Leitoscoloplos pugettensis (P)	1	0.2	0.4	2	150.

Table 41. Abundance of macroinvertebrate species in grab collections from station DS39. A = Amphipoda; [illegible] = [illegible]; C = Cephalochordata; D = Decapoda; E = Echinodermata; [illegible] = [illegible]; I = Isopoda; M = Mollusca; P = Polychaeta; S = Sipunculida; T = Tanaidacea.

DS39

Species	Total Number	Number 0.1m²* $\bar{X}$	SD	Estimated Number m²	Rank by Number
[illegible] (C)	1027			2054	1.0
[illegible] (A)	49			198	2.0
[illegible] (?)	92			184	3.0
[illegible] undet. (A, M)	56			112	4.0
Chrysopetalidae undet. (P)	49			98	5.0
Exogone dispar (P)	47			94	6.0
Nematoda (undet.)	44			88	7.0
[illegible] (P)	38			76	8.0
[illegible] (P)	36			72	9.0
[illegible] (P)	34			68	10.5
[illegible] (P)	34			68	10.5
[illegible] (I)	33			66	12.0
Cirratulidae (undet.) (P)	32			64	13.0
[illegible] (T)	[illegible]			60	14.0
[illegible] (?)	29			[illegible]	15.0
[illegible] (D)	26			52	16.0
[illegible] (?)	24			48	17.0
Ampelisca vadorum (A)	23			46	18.5
[illegible] (I)	[illegible]			46	18.5
[illegible] (P)	21			42	20.0
[illegible] (undet.) (D)	19			38	21.5
[illegible] (undet.) (B, M)	19			38	21.5
[illegible] (P)	18			36	23.5
[illegible] (P)	18			36	23.5
[illegible] (?)	17			34	25.5
[illegible]	[illegible]			[illegible]	25.5
[illegible] (P)	16			32	27.0
[illegible] (P)	13			26	28.5
[illegible] (undet.)	13			26	28.5
[illegible] (?)	12			24	30.0
[illegible] (A, S)	11			22	31.0
[illegible] (A)	10			20	32.0
[illegible] sp. (A)	9			18	33.0
[illegible] (P)	7			14	34.0
[illegible] sp. (A)	7			14	[illegible]
[illegible] (D)	7			14	[illegible]
[illegible] (P)	7			14	[illegible]
[illegible]	[illegible]			12	[illegible]
[illegible] (?)	[illegible]			12	[illegible]
[illegible] (P)	[illegible]			[illegible]	[illegible]
[illegible] (undet.)	[illegible]			10	[illegible]
[illegible] (I)	[illegible]			[illegible]	[illegible]
[illegible] (undet.)	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible] sp. (?)	[illegible]			[illegible]	[illegible]
[illegible] (P)	[illegible]			[illegible]	[illegible]
[illegible] sp. (?)	4			8	[illegible]
[illegible] (M)	4			8	[illegible]
[illegible]	4			8	[illegible]
[illegible] (?)	4			8	[illegible]
[illegible] (A)	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible] (?)	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]
[illegible]	[illegible]			[illegible]	[illegible]

Table 81. (Cont.)

DS39

Species	Total Number	Number/0.1 m^2 $\bar{X}$	SD	Estimated Number/m^2	Rank by Number
Dentalium calamus (M)	2			+	99.5
Siphonolus nudus (S)	2			+	99.5
Tharanosyllis sp. (P)	2			+	99.5
Syllis ferrugina (P)	2			+	99.5
Nycera papillosa (P)	2			+	99.5
Notomastus latericeus (P)	2			+	99.5
Terebellidae (undet.) B (P)	2			+	99.5
Nycera dibranchiata (P)	2			+	99.5
Nereidae (undet.) (P)	2			+	99.5
Eulalia sanguinea (P)	2			+	99.5
Phyllodoce arenae (P)	2			+	99.5
Alvineus formosus (D)	1			+	90.5
Ebalia cariosa (D)	1			+	90.5
Heterocrypta granulata (D)	1			+	90.5
Portunidae (undet.) (D)	1			+	90.5
Cirolana polita (I)	1			+	90.5
Trichophoxus floridanus (A)	1			+	90.5
Ampelisca carolineana (A)	1			+	90.5
Corophium insecta (A)	1			+	90.5
Cumacea (undet.) H	1			+	90.5
Turbellaria (undet.)	1			+	90.5
Nemertinea (undet.) B (E)	1			+	90.5
Semele nuculoides (M)	1			+	90.5
Columbellidae (undet.) A (M)	1			+	90.5
Turridae (undet.) A (M)	1			+	90.5
Turridae (undet.) B (M)	1			+	90.5
Hyalina vellea (M)	1			+	90.5
Marginellidae (undet.) A (M)	1			+	90.5
Nudibranchia (undet.) C (M)	1			+	90.5
Ensis directus (M)	1			+	90.5
Lima pellucida (M)	1			+	90.5
Crassinella lunulata (M)	1			+	90.5
Nolfingia sp. B (S)	1			+	90.5
Psammolyce stenilophora (P)	1			+	90.5
Terebellidae (undet.) C (P)	1			+	90.5
Phyllodocidae (undet.) A (P)	1			+	90.5
Eonialia trimma (P)	1			+	90.5
Eunice websteri (P)	1			+	90.5
Spiophanes bombyx (P)	1			+	90.5
Owenia fusiformis (P)	1			+	90.5
Ampharetidae (undet.) (P)	1			+	90.5
Lysilla nivea (P)	1			+	90.5
Petaloproctus socialis (P)	1			+	90.5

[a]Replicate grabs were combined; no mean or standard deviation available.

Table 41. Abundance of macroinvertebrate species in grab collections from station DS40. (A = Amphipoda; C = Cumacea; Ch = Cephalochordata; D = Decapoda; E = Echinodermata; Ec = Echiurida; I = Isopoda; M = Mollusca; My = Mysidacea; P = Polychaeta; Py = Pycnogonida; S = Sipunculida; T = Tanaidacea).

	DS40			
Species	Total Number	Number/0.1m²* $\bar{x}$	SD	Estimated Number/m²	Rank by Number
Brania clarki (P)	1394			2788	1.0
Nephtys caecoides (P)	339			678	2.0
Nematoda (undet.)	111			222	3.0
Polygordius (undet.) A (P)	101			202	4.0
Paraonidae (undet.) B (P)	79			158	5.0
Golfingia sp. B (S)	74			148	6.0
Euphilomedes litoralis (C)	68			136	7.0
Unciolopax smithii (D)	60			120	8.0
Petricola (undet.)	55			110	9.0
Sipuncula (undet.)	54			108	10.5
Tonicella lineata (P)	54			108	10.5
Leptognathia breve (P)	50			100	12.0
Mystides borealis (P)	47			94	14.0
Terebellidae (undet.) B (P)	47			94	14.0
Eunice vittata (P)	47			94	14.0
Tiron tropakis (A)	42			84	17.0
Syllis regulata carolinae (P)	42			84	17.0
Hemipodus fusens (P)	42			84	17.0
Golfingia sp. A (S)	40			80	19.0
Pholoe minuta (P)	39			78	20.0
Chrysopetalidae (undet.) (P)	34			68	21.0
Exogone dispar (P)	27			54	22.0
Photis sp. (A)	25			50	24.0
Axiothella mucosa (P)	25			50	24.0
Oligochaeta (undet.)	25			50	24.0
Microdeutopus sp. (A)	20			40	26.0
Maera carolinana (A)	19			38	27.0
Lembos unicornis (A)	18			36	28.5
Notomastus lobatus (P)	18			36	28.5
Uncicola serrata (A)	17			34	30.5
Onuphis nebulosa (P)	17			34	30.5
Alpheus normanni (D)	16			32	32.0
Pagurus longicarpus (D)	15			30	34.0
Nephtys squamosa (P)	15			30	34.0
Travisia parva (P)	15			30	34.0
Syllis spalina (P)	13			26	36.0
Terebellidae (undet.) A (P)	12			24	37.0
Nephtys incisa (P)	11			22	38.0
Goneplacidae (undet.) (D)	10			20	41.5
Ampelisca vadorum (A)	10			20	41.5
Ampharete sp. (P)	10			20	41.5
Harmothoe sp. B (Day) (P)	10			20	41.5
Protodorvillea kefersteini (P)	10			20	41.5
Lumbrineris tetraura (P)	10			20	41.5
Aponuphis magnifica (P)	9			18	46.5
Carinobatea virginia (A)	9			18	46.5
Armandia maculata (P)	9			18	46.5
Trichoplusia floridanus (A)	7			14	49.5
Margarelia gurjanovi (M)	7			14	49.5
Spiophanes bombyx (P)	7			14	49.5
Fabula pulchella (P)	7			14	49.5
Stenonia tuberculata (D)	6			12	54.5
Caulleriella sp. (A)	6			12	54.5
Thyrrhina stempsi (I)	6			12	54.5
Terpsia irritillana (M)	6			12	54.5
Lumbrineris tetraura (M)	6			12	54.5
Phyllodoce arenae (P)	6			12	54.5
Tellina (undet.) (M)	5			10	60.5
Tellina (undet.) (M)	5			10	60.5

Table 32. (Cont.)

Species	DS40 Total Number	Number 0.1m² * $\bar{x}$	SD	Estimated Number m²	Rank by Number
Tawystylum orbiculare (P)	5			10	60.0
Grassinella lunulata (P)	5			10	60.0
Glycera sphyrabranchia (P)	5			10	60.0
Amphipoda (undet. A)	4			8	65.5
Amphipoda (undet.) F	4			8	65.5
Calyptraea centralis (M)	4			8	65.5
Dentalium calarus (M)	4			8	65.5
Gastropoda (undet.) B	4			8	65.5
Ophelia denticulata (P)	4			8	65.5
Pinnixa retinens (C)	3			6	73.0
Tunicata (undet.)	3			6	73.0
Cyclaspis varians (C)	3			6	73.0
Nemertina (undet.)	3			6	73.0
Nassarius mendicus (M)	3			6	73.0
Grassinella mistilineata (M)	3			6	73.0
Margarites cinctus (M)	3			6	73.0
Gastropoda (undet. A)	3			6	73.0
Nicolea zostericola (P)	3			6	73.0
Tritia obsoleta (M)	2			4	85.5
Brachyura (undet.) (C)	2			4	85.5
Portunidae (undet.) (C)	2			4	85.5
Lepidonotus rapax (P)	2			4	85.5
Lembos smithi (A)	2			4	85.5
Amphipoda (undet.) (A)	2			4	85.5
Amphipoda (undet.) M	2			4	85.5
Ophiuroidea (undet.) (E)	2			4	85.5
Anachis avara (M)	2			4	85.5
Abra aequalis (M)	2			4	85.5
Glycera tesselata (P)	2			4	85.5
Psammoryx tenuibranchia (P)	2			4	85.5
Platynereis dumerilii (P)	2			4	85.5
Lysidice ninetti (P)	2			4	85.5
Eulalia sanguinea (P)	2			4	85.5
Petaloproctus socialis (P)	2			4	85.5
Cuthona parvula (O)	1			2	111.5
Heterocrypta granulata (O)	1			2	111.5
Dipolydora hemphilli (P)	1			2	111.5
Cingula inserta (M)	1			2	111.5
Tunicata (undet. E	1			2	111.5
Mysidacea (undet. A	1			2	111.5
Heteromastus filiformis (P)	1			2	111.5
Tunicata (undet. F	1			2	111.5
Pseudopolydora cf. kempi floridanus (P)	1			2	111.5
Nemertina (undet. C	1			2	111.5
Astyris lunata (undet.) (M) (E)	1			2	111.5
Onuphis anguilla (P)	1			2	111.5
Nereis lobiata (P)	1			2	111.5
Pinnixa texana (C)	1			2	111.5
Cantharus tinctus (M)	1			2	111.5
Polychaeta (undet.)	1			2	111.5
Pinnixa valerii (C)	1			2	111.5
Aphelochaeta sp. (P)	1			2	111.5
Marginellidae (undet.) (M)	1			2	111.5
Mitrellidae (undet.) (M)	1			2	111.5
Polinices duplicatus (undet.) (M)	1			2	111.5
Lumbrineris multiformis (P)	1			2	111.5
Nuculana acuta (M)	1			2	111.5
Spiochaetopterus pseudocostarum (P)	1			2	111.5
Diopatra cuprea (P)	1			2	111.5

Table 32. Cont.

DS40

Species	Total Number	Number 0.1m^2* $\bar{x}$	Number 0.1m^2* SD	Estimated Number m^2	Rank by Number
Trypanosyllis sp. (P)	1			2	111.5
Serpulus vermicularis granulosa (P)	1			2	111.5
Ioniada teres (P)	1			2	111.5
Sphaerosyllis pirifera (P)	1			2	111.5
Pherusa sp. (P)	1			2	111.5
Scoloplos rubra (P)	1			2	111.5
Hydroides protulicola (P)	1			2	111.5
Polydora sp. B (P)	1			2	111.5
Owenia fusiformis (P)	1			2	111.5
Arabella iricolor (P)	1			2	111.5
Nereidae (undet.) (P)	1			2	111.5

*Replicate grabs were combined; no mean or standard deviation available.

Table 83. Number of individuals and number of species for each of the major invertebrate taxa of infaunal organisms from the ocean disposal area study site.

Taxon	Number of Individuals	% of Total	Cumul. %	Taxon	Number of Species	% of Total	Cumul. %
Polychaeta	12,713	37.47	37.47	Polychaeta	211	42.80	42.80
Cephalochordata	6,633	19.55	57.02	Pelecypoda	53	10.75	53.55
Amphipoda	3,406	10.04	67.06	Decapoda	49	9.94	63.49
Pelecypoda	2,369	6.98	74.04	Gastropoda	49	9.94	73.43
Sipunculida	1,768	5.21	79.25	Amphipoda	43	8.72	82.15
Ectoprocta	1,329	3.92	83.17	Echinodermata	20	4.06	86.21
Nematoda	1,142	3.36	86.53	Isopoda	12	2.43	88.64
Decapoda	1,052	3.10	89.63	Cumacea	7	1.42	90.06
Isopoda	590	1.74	91.37	Mysidacea	7	1.42	91.48
Gastropoda	535	1.58	92.95	Sipunculida	6	1.22	92.70
Polyplacophora	451	1.33	94.28	Polyplacophora	5	1.01	93.71
Echinodermata	405	1.19	95.47	Stomatopoda	4	0.81	94.52
Rhynchocoela	366	1.08	96.55	Tanaidacea	4	0.81	95.33
Oligochaeta	296	0.87	97.42	Rhynchocoela	3	0.61	95.94
Tanaidacea	203	0.60	98.02	Scaphapoda	3	0.61	96.55
Cumacea	195	0.57	98.59	Anthozoa	2	0.40	96.95
Ostracoda	119	0.35	98.94	Ectoprocta	2	0.40	97.35
Mysidacea	111	0.33	99.27	Pycnogonida	2	0.40	97.75
Unknown Taxa	66	0.19	99.46	Unknown Taxa	2	0.40	98.15
Brachiopoda	63	0.18	99.64	Brachiopoda	1	0.20	98.35
Turbellaria	59	0.17	99.81	Cephalochordata	1	0.20	98.55
Scaphapoda	21	0.06	99.87	Echiurida	1	0.20	98.75
Anthozoa	16	0.05	99.92	Hemichordata	1	0.20	98.95
Pycnogonida	14	0.04	99.96	Nematoda	1	0.20	99.15
Stomatopoda	6	0.02	99.98	Oligochaeta	1	0.20	99.35
Phoronida	2	<0.01		Ostracoda	1	0.20	99.55
Hemichordata	1	<0.01		Phoronida	1	0.20	99.75
Echiurida	1	<0.01	100.00	Turbellaria	1	0.20	99.95

Table 84. Species diversity and species density information for grab samples collected in and adjacent to the Offshore Disposal Area during August, 1978.

Station	Diversity (H')	Evenness (J')	Richness (SR)	Number of Individuals/0.5 m^2	Number of Species
DS01	3.96	0.83	5.62	102	27
DS02	3.48	0.70	5.68	234	32
DS03	3.70	0.69	7.13	273	41
DS04	4.34	0.75	8.99	407	55
DS05	4.66	0.79	9.03	550	58
DS06	5.50	0.79	17.69	1,108	125
DS07	4.81	0.70	16.83	1,107	119
DS08	5.40	0.80	16.24	643	106
DS09	5.18	0.83	12.13	447	75
DS10	3.66	0.74	5.52	230	31
DS11*	3.86	0.73	6.99	264	40
DS12*	4.63	0.77	10.43	419	64
DS13*	5.98	0.81	22.00	1,978	168
DS14*	4.78	0.82	10.02	296	58
DS15	5.17	0.82	13.10	416	80
DS16	5.53	0.75	20.86	2,593	165
DS17	4.78	0.84	9.06	310	53
DS18	4.83	0.75	12.69	812	86
DS19*	5.09	0.85	10.38	475	65
DS20*	5.04	0.80	12.75	531	81
DS21*	4.20	0.71	9.39	596	61
DS22*	4.74	0.80	10.09	347	60
DS23	4.30	0.81	6.77	274	39
DS24	5.34	0.86	12.93	262	73
DS25	4.60	0.76	10.43	462	65
DS26	5.13	0.79	13.94	551	89
DS27*	3.46	0.55	10.90	1,169	78
DS28*	4.31	0.72	9.84	546	63
DS29*	4.95	0.73	14.85	1,253	107
DS30*	5.23	0.70	21.00	3,966	175
DS31**	4.11	0.63	13.55	1,031	95
DS32	4.20	0.65	12.42	1,197	89
DS33	3.98	0.58	14.79	2,919	119
DS34	4.02	0.61	13.04	1,459	96
DS35	5.11	0.72	18.30	1,690	137
DS36	3.97	0.62	12.06	974	84
DS37	4.64	0.71	13.57	759	91
DS38	6.13	0.82	22.90	1,830	173
DS39	3.91	0.58	13.67	2,169	106
DS40	4.20	0.60	15.73	3,420	129

* stations located in disposal area
** number of individuals in 0.4 m^2

Table 85. Geochemical analyses of sediments from the Charleston Harbor Ocean Disposal Area (expressed as percent by weight, dry basis).

	DS01	DS04	DS08	DS09	DS11	DS12	DS13	DS14	DS16
Volatile Solids	1.48	2.34	2.17	1.65	0.86	1.16	1.27	1.69	1.45
Total Organic Carbon	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
C.O.D.	0.10	0.86	0.80	0.26	0.27	0.33	0.16	0.24	0.36
Nitrogen Kjeldahl	<0.10	0.02	0.02	0.02	0.01	<0.01	<0.01	0.02	0.01
Ammonia Nitrogen as NH_3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrite Nitrogen as NO_2	0.00002	<0.00001	0.00001	0.00002	0.00001	0.00002	0.00002	0.00002	0.00002
Nitrate Nitrogen as NO_3	0.00006	0.00019	0.00009	0.00006	0.00009	0.00005	0.00008	0.00006	0.00004
Oil and Grease	0.008	0.010	0.007	<0.01	0.022	0.003	0.013	0.012	0.002
Lead	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00005	0.00019
Zinc	0.0028	0.0016	0.0010	0.0012	0.0014	0.0008	0.0013	0.0012	0.0010
Mercury	0.000020	0.000036	0.000022	0.000007	0.000020	0.000015	0.00019	0.000014	0.000042
Soluble Phosphorus as PO_4	0.00014	0.00001	0.00006	0.00004	0.00005	0.00012	0.00013	0.00005	0.00005
Total Phosphorus as PO_4	0.56	0.35	0.20	1.38	0.23	0.19	0.21	0.07	0.21
Iron	0.38	0.68	0.63	0.36	0.32	0.34	0.33	0.33	0.54
Cadmium	0.00003	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	<0.00001	0.00001	<0.00001
Arsenic	0.00017	0.00024	0.00040	0.00055	0.00015	0.00018	0.00050	0.00014	0.00070
Chromium	0.0027	0.0038	0.0031	0.0021	0.0031	0.0027	0.0022	0.0027	0.0022
Nickel	0.00008	0.00021	<0.00005	0.00008	0.00006	0.00010	0.00018	0.00018	0.00003
Copper	0.0016	0.0027	0.0018	0.0018	0.0018	0.0016	0.0024	0.0016	0.0016
Beryllium	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Selenium	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	0.00002	<0.00002	<0.00002
Vanadium	<0.00005	0.00030	0.00010	<0.00005	0.00037	0.00005	0.00010	0.00037	0.00020

Table 8%. (Cont.)

	DS17	DS19	DS20	DS21	DS22	DS24	DS25	DS27	DS28
Volatile Solids	1.26	1.74	1.48	1.47	0.88	1.70	1.44	1.74	0.70
Total Organic Carbon	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0
C.O.D.	0.41	0.31	0.33	0.28	0.17	0.26	0.22	0.20	0.15
Nitrogen Kjeldahl	<0.01	0.01	0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01
Ammonia Nitrogen as NH_3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrite Nitrogen as NO_2	0.00002	0.00002	0.00001	0.00002	0.00001	0.00001	0.00002	0.00002	0.00001
Nitrate Nitrogen as NO_3	0.00006	0.00008	0.00015	0.00002	0.00009	0.00008	0.00005	0.00005	0.00009
Oil and Grease	0.010	0.008	0.014	0.007	0.010	0.003	0.010	0.009	0.007
Lead	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Zinc	0.0014	0.0015	0.0016	0.0015	0.0008	0.0012	0.0010	0.0015	0.0006
Mercury	0.000037	0.000030	0.000017	0.000012	0.000021	0.000022	0.000029	0.000018	0.000113
Soluble Phosphorus as PO_4	0.00006	0.00005	0.00002	0.00007	0.00005	0.00006	0.00006	<0.00001	0.00003
Total Phosphorus as PO_4	0.56	1.06	0.64	0.16	0.19	0.13	0.12	0.77	0.25
Iron	0.44	0.27	0.31	0.32	0.22	0.31	0.31	0.20	0.19
Cadmium	0.00003	0.00004	0.00002	0.00001	<0.00001	<0.00001	<0.00001	0.00003	<0.00001
Arsenic	0.00020	0.00014	0.00029	0.00015	0.00011	0.00020	0.00017	0.00013	0.00014
Chromium	0.0007	0.0027	0.0022	0.0022	0.0017	0.0022	0.0022	0.0022	0.0020
Nickel	0.00018	0.00073	0.00021	0.00023	<0.00005	0.00016	0.00006	0.00018	<0.00005
Cooper	0.0016	0.0008	0.0012	0.0022	0.0008	0.0012	0.0010	0.0010	0.0010
Beryllium	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Selenium	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
Vanadium	0.00020	0.00030	0.00020	0.00010	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005

Table 5-1. (Cont.)

	DS29	DS30	DS32	DS33	DS36	DS40
Volatile Solids	1.30	1.56	0.89	1.95	1.15	1.70
Total Organic Carbon	<1.0	<1.0	<1.0	1.0	<1.0	<1.0
C.O.D.	0.22	0.26	0.14	0.32	0.20	0.36
Nitrogen Ejeldahl	0.01	0.01	<0.01	0.02	0.01	0.02
Ammonia Nitrogen as NH_3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrite Nitrogen as NO_2	0.00002	0.00001	0.00001	0.00002	0.00001	0.00002
Nitrate Nitrogen as NO_3	0.00008	0.00011	0.00010	0.00007	0.00011	0.000013
Oil and Grease	0.011	0.007	<0.001	0.012	0.007	0.008
Lead	<0.00005	0.00006	<0.00005	0.00025	<0.00005	<0.00005
Zinc	0.0008	0.0016	0.0006	0.0008	0.0007	0.0008
Mercury	0.000015	0.000021	0.000006	0.000043	0.000015	0.000018
Soluble Phosphorus as PO_4	0.00008	0.00008	0.00010	0.00007	0.00001	0.00022
Total Phosphorus as PO_4	0.22	0.25	1.17	0.19	0.16	0.15
Iron	0.19	0.20	0.12	0.41	0.19	0.18
Cadmium	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Arsenic	0.00018	0.00020	0.00012	0.00100	0.00029	0.00018
Chromium	0.0022	0.0022	0.0017	0.0031	0.0022	0.0017
Nickel	0.00006	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Copper	0.0012	0.0014	0.0012	0.0010	0.0012	0.0018
Beryllium	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Selenium	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
Vanadium	<0.00005	<0.00005	<0.00005	0.00020	<0.00005	<0.00005

Table 2. Statistical measures and textural size distributions for Charleston Entrance Channel samples.

QUARTZ GRAIN SIZE DISTRIBUTIONS

STATION	COMPOSITION (weight %) Quartz Sand	CO_3 Sand	Silt	Clay	Mode (Phi units)	TOTAL DISTRIBUTION Mean ϕ	SD (ϕ units)	Skew[1]	Kurtosis[2]	COMPONENT 1 Mean ϕ	SD (ϕ units)	% of Sample	COMPONENT 2 Mean ϕ	SD (ϕ units)	% of Sample	COMPONENT 3 Mean ϕ	SD (ϕ units)	% of Sample
1-1	58	22				2.16	.715	.511	1.886	2.36	.25	59%	1.88	.62	41%			
1-2	31	59				2.33	.682	.360	2.997	2.45	.31	78%	1.89	.65	22%			
1-3	4	29				2.16	.677	.701	2.705	2.42	.36	74%	1.43	.80	26%			
1-4	65	35				0.88	1.343	0.037	0.894	0.56	.49	50%	2.59	.35	30%	0.84	.62	20%
1-5	57	13				2.33	.598	- .694	2.554	2.52	.23	68%	2.05	.51	30%	2.94	.07	2%
1-6	57	13				2.33	.464	- .724	3.481	2.60	.15	85%	2.90	.10	5%	2.20	.30	10%
1-7	17	28				2.23	1.061	.729	1.705	2.82	.35	53%	1.00	.90	30%	2.83	.0003	17%
1-8	64	36				2.56	.814	-1.049	5.233	2.72	.35	63%	2.65	.09	31%	1.47	1.04	2%
1-9	90	8			2	2.68	.433	- .750	6.430	2.64	.44	67%	2.81	.11	33%			
1-10	92	2	20	06		2.98	.478	-1.529	18.219	3.05	.16	68%	2.97	.03	32%			
1-11	9	1	24	14		3.61	.399	-1.566	22.766	3.53	.21	84%	2.87	.14	16%			
1-12	23	4	56	18		3.53	.335	-1.079	13.665	3.54	.20	88	2.85	.11	12%			
1-13	19	4	52	25		3.36	.503	-1.026	12.420	3.54	.20	81%	2.85	.12	19%			
1-14	21	19	43	6		3.06	.401	.233	3.559	3.09	.40	83	2.84	.03	17			
1-15	9	19	1	1		2.33	.377	.763	8.309	2.40	.15	93	2.27	.46	7%			
1-16	10	90				2.28	.602	1.071	10.884	2.39	.33	80%	1.90	.96	20%			
1-17	10	39				2.52	.566	- .878	9.012	2.52	.30	75%	2.10	.84	25%			
1-18	5	37			2	2.09	.663	- .380	.941	2.45	.36	50%	1.75	.66	50%			
1-19	30	71			99	2.62	.567	- .813	6.027	2.84	.59	68	2.88	.12	32%			
1-20	11	46				2.01	.702	- .520	2.588	1.89	.71	70%	2.26	.26	30			
1-21	47	30			17	2.42	.763	-1.010	9.515	2.53	.22	65%	2.38	.16	35%			

[1] Skewness measures the asymmetry, skewness indicates a coarse tail, fskewness a fine tail

[2] Kurtosis measures the peakedness of the curve

[3] Standard deviation = Inclusive graphic standard deviation

TABLE 87. Membership of the six (6) unique textural groups identified in the Charleston Entrance Channel as determined on quartz phi-normal components.

GROUP 1: Mean = 2.41 ± .12 Ø S.D. = 0.30 ± .04 Ø units	GROUP 2: Mean = 1.95 ± .18 Ø S.D. = 0.60 ± .10 Ø units	GROUP 3: Mean = 1.79 ± .59 Ø S.D. = 0.84 ± .09 Ø units
EC01-1	EC01-2	EC03-2
EC02-1	EC02-2	EC07-2
EC03-1	EC05-2	EC16-2
EC04-1	EC15-2	EC17-2
EC05-1	EC18-2	EC21-1
EC06-3	EC20-1	
EC16-1		
EC17-1		
EC18-1		
EC20-2		
GROUP 4: Mean = 2.78 ± .19 Ø S.D. = 0.10 ± 0.5 Ø units	**GROUP 5: Mean = 3.09 ± .37 Ø S.D. = 0.34 ± .13 Ø units**	**GROUP 6: Mean = -0.14 ± .99 Ø S.D. = 0.55 ± .09 Ø units**
EC05-3	EC07-1	EC04-1
EC06-1	EC08-1	EC04-3
EC06-2	EC09-1	
EC07-3	EC10-1	
EC08-2	EC11-1	
EC09-2	EC12-1	
EC10-2	EC13-1	
EC11-2	EC14-1	
EC12-2	EC19-1	
EC13-2		
EC14-2		
EC15-1		
EC19-2		
EC21-2		

Table 88. Goodness-of-fit tests for the three (3) major unique textural groups identified from the quartz phi-normal components of Charleston Entrance channel bottom sediments. The null hypothesis being tested is that of equal distribution over the 3 zones.

GROUP 1: χ^2 = 2.84, 2 D.F.

	EXPECTED	OBSERVED
Zone 1 (Jetties)	3.04	4
Zone 2 ("Canyon")	2.17	0
Zone 3 (Shelf)	4.78	6

GROUP 4: χ^2 = 1.71, 2 D.F.

	EXPECTED	OBSERVED
Zone 1 (Jetties)	4.26	3
Zone 2 ("Canyon")	3.04	5
Zone 3 (Shelf)	6.70	6

GROUP 5: χ^2 = 6.21*, 2 D.F.

	EXPECTED	OBSERVED
Zone 1 (Jetties)	2.74	1
Zone 2 ("Canyon")	1.96	5
Zone 3 (Shelf)	4.30	3

*Reject the null hypothesis of equal distribution at the 90% confidence level.

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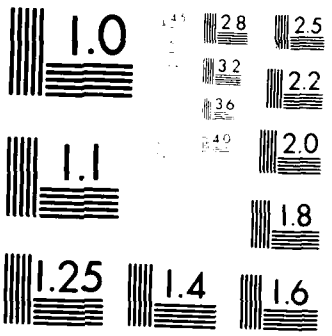
UNCLASSIFIED DACW60-78-C-0026 F/G 8/8 NL



[illegible] Bottom boat forms and sediment composition at the check [illegible]

[illegible]	Flat	RIPPLE MARKS Symmetric Height	Wavelength	Crest Orientation	Contents	SEDIMENT COMPOSITION Ripple Mark Crests Grav. Wt.	Shell Wt.	Ripple Mark Troughs Grav. Wt.	Shell Wt.
[illegible] (Oct. 24, 1978)		4.5 cm	14 cm	Asymmetric, pointing to North		56 82 82	14 18 18	58 86 82	12 14 18
[illegible] (Oct. 27, 1978)		2.5 cm	13 cm	NW/SE	Astrangia danae, Leptogorgia setacea, Balanus spp., bedrock, echinoderms.	66 76 75	34 24 25	74 58 62	26 42 38
[illegible] (Oct. 27, 1978)					No visibility ripple mark present but could not be measured.	56 78	44 22	64	32
[illegible] (Oct. 25, 1978)		3 cm	26 cm	NW/SE		93 93 93	7 7 7	93 93 93	7 7 7
[illegible] (Oct. 27, 1978)		4 cm	20 cm	WNW/ESE	Shells on bottom: Dinocardium robustum, Ensis sp. and various other mollusks.	90 90 90	10 10 10	90 90 90	10 10 10
DS15 (Oct. 27, 1978)		6 cm	20 cm	WNW/ESE	Shells on bottom: Dinocardium robustum, Ensis sp. and various other mollusks.	93 93 93	7 7 7	93 92 91	7 8 9
DS18 (Oct. 27, 1978)		3.5 cm	19 cm	WNW/ESE		82 89 89	18 11 11	88 86 90	12 14 10
DS20 (Oct. 27, 1978)		6 cm	35 cm	W/E	Shells on bottom: Oliva sp., Mulinia sp. Calcarenite rock fragments present.	87 90 89	13 10 11	74 77 83	26 23 17
DS22 (Oct. 27, 1978)		3.5 cm	14 cm	WNW/ESE		86 80 87	14 1	83 87 79	17 13 21
DS27 (Oct. 24, 1978)		4.5 cm	33 cm	SW/NE	Titanideum fraunfeldii, Leptogorgia setacea, various bryozoa, echinoderms, Astrangia danae.	80 77 77		71 67 72	29 33 28
DS29 (Oct. 27, 1978)		4.0 cm	17 cm	N/S	Titanideum fraunfeldii, Balanus spp., Calcarenite rock fragments present.	79 80 79	21 20 21	79 78 79	21 22 21
DS31 (Oct. 25, 1978)		8.5 cm	41 cm	W/E		76 72 67	24 28 33	70 52 69	30 48 31
DS34 (Oct. 25, 1978)		9.5 cm	56 cm	S/S		84 83 83	16 17 18	57 57 54	43 43 46
DS37 (Oct. 24, 1978)		2.8 cm	21 cm	NNE/SSW		91 89 91	9 11 9	90 91 92	10 9 8
DS39 (Aug. 21, 1978)	X					75 73 80	25 62 20	44 43 44	56 57 56

BLE 42. Membership of six (6) unique textural groups identified in the Charleston Harbor Offshore Disposal Study Area as determined on quartz phi-normal components. These six (6) groups account for 70% of the total quartz phi-normal components.

GROUP 1: Mean = 1.01 ± .13 Ø
S.D. = .55 ± .09 Ø units
No. = 23

DS-20-A1 DS-39-E1
DS-20-C1 DS-39-F1
DS-22-A1
DS-22-B1
DS-22-C1
DS-22-D1
DS-22-E1
DS-22-F1
DS-31-A1
DS-31-B1
DS-31-C1
DS-31-E1
[illegible]
[illegible]
DS26-2
DS31-1
DS33-1
DS-39-A1
DS-39-B1
DS-39-C1
DS-39-D1

GROUP 5: Mean = 2.00 ± .08 Ø
S.D. = .56 ± .09 Ø units
No. = 41

DS-05-B2 DS-27-C1
DS-05-C2 DS-27-E2
DS-05-D2 DS-29-A2
DS-11-A2 DS-29-B2
DS-11-B2 DS-29-C2
DS-13-B2 DS-29-F2
DS-13-D2 DS-31-A2
DS-13-E2 DS-31-B2
DS-13-F2 DS-31-C2
DS-15-A2 DS05-1
DS-15-B2 DS09-1
DS-15-C2 DS10-1
DS-15-D2 DS15-1
DS-15-E2 DS16-2
DS-15-F2 DS20-2
DS-18-A2 DS25-2
DS-18-B2 DS28-1
DS-18-D2 DS34-1
DS-18-E2 DS36-2
DS-18-F2 DS38-2
DS-27-A2

GROUP 6: Mean = 2.35 ± .11 Ø
S.D. = .53 ± .07 Ø units
No. = 20

DS-02-A1
DS-02-B1
DS-92-C1
DS-02-D1
DS-02-E1
DS-02-F1
DS-11-C2
DS-11-D2
DS-11-E2
DS-11-F2
DS-13-A1
DS-29-D2
DS12-2
DS14-2
DS17-2
DS19-1
DS21-2
DS22-2
DS24-1
DS29-1

GROUP 8: Mean = 2.31 ± .06 Ø
S.D. = .28 ± .06 Ø units
No. = 42

DS-02-A2 DS-27-E1
DS-02-B2 DS-27-F2
DS-02-E2 DS-31-D2
DS-13-C1 DS-31-E2
DS-15-A1 DS-31-F2
DS-15-B1 DS05-2
DS-15-C1 DS09-2
DS-15-D1 DS10-2
DS-15-E1 DS23-1
DS-15-F1 DS24-2
DS-18-B1 DS30-2
DS-20-A2 DS31-2
DS-20-B2 DS32-2
DS-20-D2 DS35-2
DS-20-E2 DS36-1
DS-20-F2 DS37-2
DS-27-B1 DS-39-B2
DS-27-A1 DS-39-D2
DS-27-B2 DS-39-E2
DS-27-C2 DS-39-F2
DS-27-D2 DS40-2

GROUP 9: Mean = 2.50 ± .06 Ø
S.D. = .34 ± .04 Ø units
No. = 26

DS-13-B1 DS26-1
DS-13-F1 DS27-1
DS-18-A1 DS33-3
DS-18-C1 DS-39-A2
DS-18-D1 DS-39-C2
DS-18-E1
DS-18-F1
DS-22-A2
DS-22-B2
DS-22-C2
DS-22-D2
DS-29-A1
DS-29-B1
DS-37-A1
DS-37-B1
DS-37-C1
DS-37-D1
DS-37-E1
DS-37-F1
DS11-1
DS15-2

GROUP 10: Mean = 2.67 ± .05 Ø
S.D. = .26 ± .05 Ø units
No. = 26

DS-11-A1 DS20-1
DS-11-B1 DS21-1
DS-11-C1 DS22-1
DS-11-D1 DS23-2
DS-11-E1 DS25-1
DS-11-F1
DS-13-D1
DS-13-E1
DS-22-E2
DS-22-F2
DS-29-C1
DS-29-D1
DS-29-E1
DS-29-F1
DS01-1
DS11-2
DS12-1
DS14-1
DS17-1
DS18-1
DS19-2

Table 93. Goodness-of-fit tests for the six (6) major unique textural groups identified from the quartz phi-normal components of Charleston Harbor Offshore Disposal Study Area bottom sediments. The null hypothesis being tested is that of equal distribution Inside of and Outside of the Charleston Harbor Offshore Disposal Area proper.

GROUP 1: $\chi^2 = .10$, 1 D.F.

	EXPECTED	OBSERVED
Inside	8.74	8
Outside	14.26	15

GROUP 5: $\chi^2 = .03$, 1 D.F.

	EXPECTED	OBSERVED
Inside	15.58	15
Outside	25.42	26

GROUP 6: $\chi^2 = 2.45$, 1 D.F.

	EXPECTED	OBSERVED
Inside	7.6	11
Outside	12.4	9

GROUP 8: $\chi^2 = .09$, 1 D.F.

	EXPECTED	OBSERVED
Inside	15.96	15
Outside	26.04	27

Table 93. (Continued)

GROUP 9: χ^2 = .08, 1 D.F.

	EXPECTED	OBSERVED
Inside	9.88	10
Outside	16.12	16

GROUP 10: χ^2 = 20.19*, 1 D.F.

	EXPECTED	OBSERVED
Inside	9.88	21
Outside	16.12	5

*Reject null hypothesis of equal distribution at the 90% confidence level.

Table 94. Goodness-of-fit tests for the six (6) major unique textural groups identified from the quartz phi-normal components of Charleston Harbor Offshore Disposal Study Area bottom sediments. The null hypothesis being tested is that of equal distribution over shore-parallel transects.

Group 1: x^2 = 11.86*, 4 D.F.

Stations	Expected	Observed
1-8	4.14	1
9-16	4.83	0
17-24	4.71	8
25-32	4.71	7
33-40	4.60	7

Group 5: x^2 = 11.36*, 4 D.F.

Stations	Expected	Observed
1-8	7.38	4
9-16	8.61	15
17-24	8.40	7
25-32	8.40	12
33-40	8.20	3

Group 6: x^2 = 8.74*, 4 D.F.

Stations	Expected	Observed
1-8	3.6	6
9-16	4.2	7
17-24	4.1	5
25-32	4.1	2
33-40	4.0	0

Group 8: x^2 = 3.94, 4 D.F.

Stations	Expected	Observed
1-8	7.56	4
9-16	8.82	9
17-24	8.61	8
25-32	8.61	13
33-40	8.40	8

Group 9: x^2 = 9.44*, 4 D.F.

Stations	Expected	Observed
1-8	4.68	0
9-16	5.46	4
17-24	5.33	9
25-32	5.33	4
33-40	5.20	8

Group 10: x^2 = 16.26*, 4 D.F.

Stations	Expected	Observed
1-8	4.68	1
9-16	5.46	11
17-24	5.33	9
25-32	5.33	5
33-40	5.20	0

*Reject the null hypothesis of equal distribution at the 90% confidence level.

Table 95. Goodness-of-fit tests for the six (6) major unique textural groups identified from the quartz phi-normal components of Charleston Harbor Offshore Disposal Study Area bottom sediments. The null hypothesis being tested is that of equal distribution over shore-perpendicular transects.

Group 1: x^2 = 15.38*, 3 D.F.

Transects	Expected	Observed
I (East)	5.175	2
II	5.175	2
III	7.36	6
IV (West)	5.29	13

Group 5: x^2 = 0.43, 3 D.F.

Transects	Expected	Observed
I (East)	9.225	9
II	9.225	8
III	13.12	13
IV (West)	9.43	11

Group 6: x^2 = 4.73, 3 D.F.

Transects	Expected	Observed
I (East)	4.5	7
II	4.5	6
III	6.4	6
IV (West)	4.6	1

Group 8: x^2 = 16.73*, 3 D.F.

Transects	Expected	Observed
I (East)	9.45	2
II	9.45	15
III	13.44	4
IV (West)	9.66	17

Group 9: x^2 = 8.12*, 3 D.F.

Transects	Expected	Observed
I (East)	5.85	7
II	5.85	2
III	8.32	14
IV (West)	5.98	3

Group 10: x^2 = 9.60*, 3 D.F.

Transects	Expected	Observed
I (East)	5.85	4
II	5.85	11
III	8.32	10
IV (West)	5.98	1

*Reject the null hypothesis of equal distribution at the 90% confidence level.

END

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